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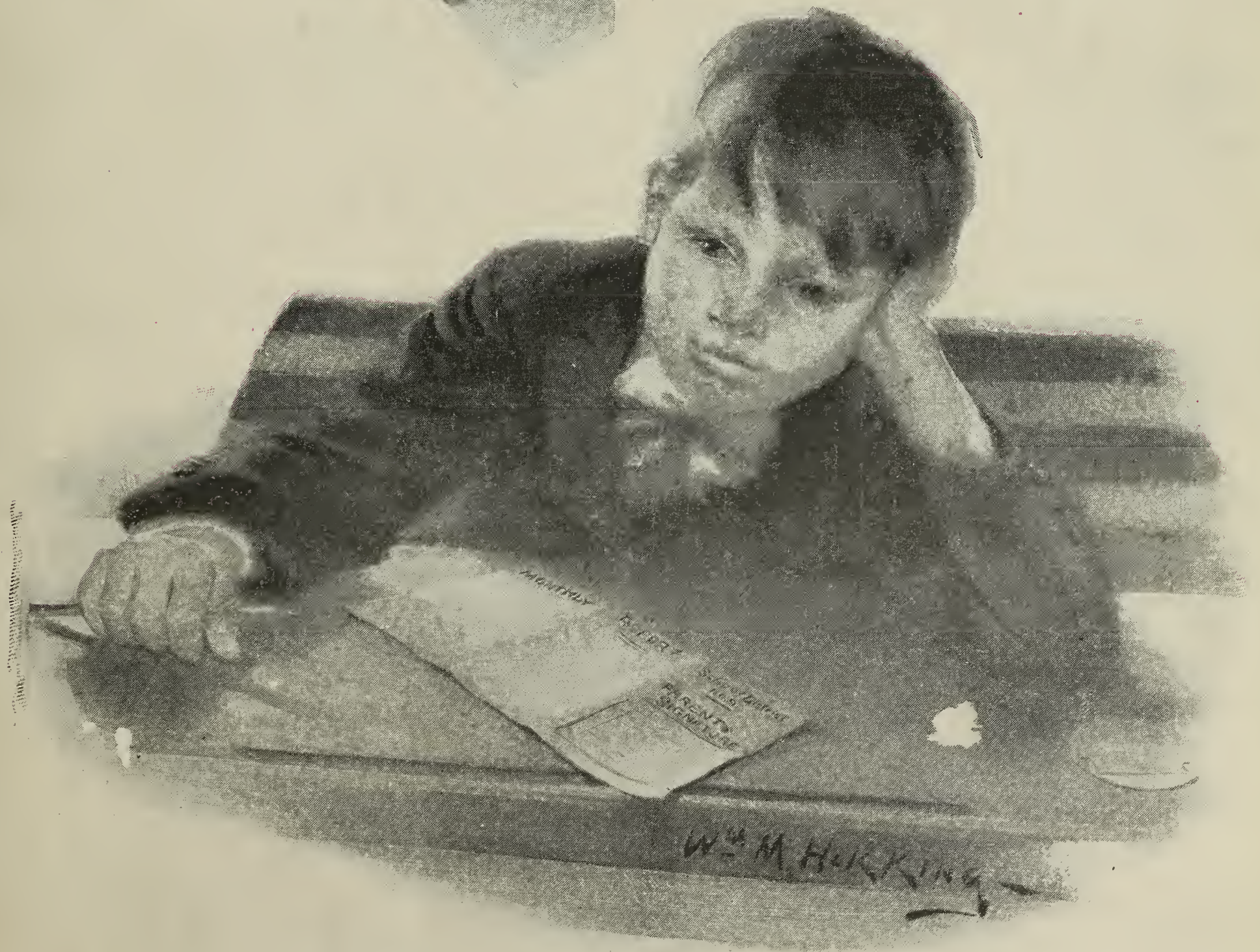
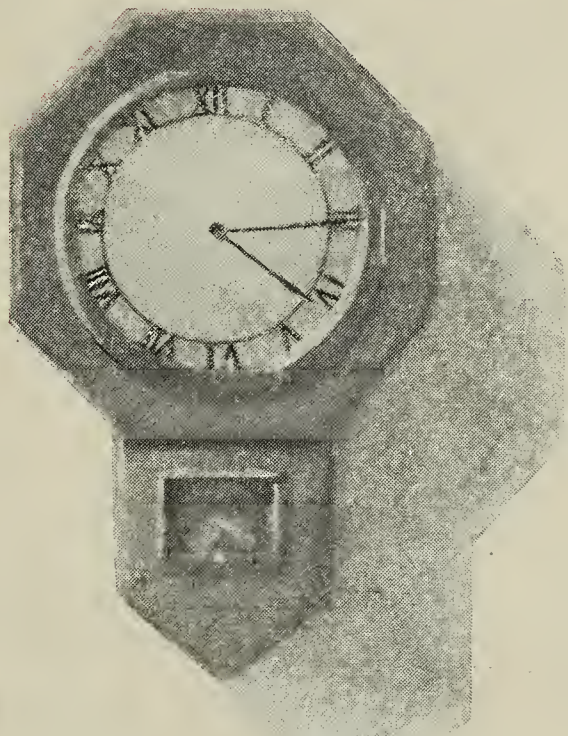
FARM AND FIRESIDE

THE NATIONAL FARM PAPER



ESTABLISHED
1877

OCTOBER 10
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With the Editor

I AM beginning to feel acquainted with the people of Florida. That homeseekers' article has elicited from Floridians a considerable grist of protests—just as I thought it would. And I finish a reading of them with heightened respect for the people of Florida. The letters bear such plain evidences of honesty. They seem so solicitous to tell the truth—as they think the article failed in some respects to do. I congratulate Florida on possessing people who tell the truth, even when they feel a little edgewise at what they regard as an injustice.

One of the best of these letters is written by Mr. Joseph Bolt of Brooklyn, Florida. He is a Northerner who has been in Florida a dozen years and likes it. He has reason to like it, for he says he has "made a home there out of the wilderness, without money and with poor health." He means poor health to begin with, for he adds that, while he and his wife were poorly in the North, "during the twelve years we have been here we have enjoyed good health all the time."

Mr. Bolt speaks highly of the productiveness of the soil in many parts of the state, as does Mr. S. W. Pentz of Grant. Mr. Pentz went to Florida in 1910 with an invalid wife who has recovered her health. He has had a fine crop of sweet potatoes, and believes he can do as well there as in any part of the North.

Mrs. A. M. Reed, who does not give her address, says that after a year on the southeast coast, which she describes as a region of "beautiful, prosperous farms," she is charmed with the climate, with its opportunity for open-air life the year round, and thinks it a fine place for the poor man who is intelligent and industrious.

Mr. C. H. Ward of Winter Park is rather more enthusiastic than these, but in the main corroborates them. He admits the snakes, but says they are "mighty hard to find." Fleas abound in poultry-yards and about domestic animals, he says, but never bother "to any great extent." The "red bugs," he asserts, are never found except in low, grassy places, and are not troublesome in cultivated lands. Mr. Ward admits that there are "questionable land schemes" being carried on there. The big freeze of '95, he thinks, proved that the state is good for something else besides fruit.

BUT among all the letters I believe I shall select that of Rev. J. K. Davis of Lemon City for full publication. I am sure the others will be willing to give Mr. Davis the floor while he speaks for Florida.

I should like to give some information regarding Florida, and I trust no one will doubt even one word I say. I will not write to help Florida to appear great or small, but simply to give the real facts.

I have lived in Florida four and one-half years in four different parts of the state. The climate is fine. There are several persons in this vicinity who have lived in every western and southern state on ocean or gulf and tell me this county (Dade) is ahead of all for a perfect climate and good salt breeze.

In north central and western Florida citrus fruit and vegetables often are frozen and young trees hurt. Three winters out of five I have seen young trees killed to the ground, and yet owners of large old trees well cared for in those sections are getting good money out of them. These same localities are fine for melons, cabbage, potatoes, peaches and pears. Good care and plenty of fertilizer bring fine profits.

Rainfall here is heavier than in Northern States, but it is needed, and I have witnessed what they call the rainy season here for four summers, and I have never seen anything more than I often saw in western Kentucky, except it rains harder here. It has never "looked like we were in a pond," for the water gets out of our way here quicker than in the North. In the four summers I have lived here I have not seen near the danger or damage done that was done in that time by wind and storms in the states of Illinois and Kentucky, where I came from.

Of course, gardens don't do any good in most parts of Florida during June, July and August, as the sun and rain often scalds them.

As to health, I have observed carefully the diseases of this state, and the truth is few people who come here in good health are ever sick outside of a little malaria. In some of the low sections on the rivers malaria afflicts some all the year. The physicians of this county tell me they have never had a case of pneumonia or La Grippe.

Land surface here in Florida is nearly level and low, but cultivated land drains itself so that water stands but a little while after rain. The soil is mostly sandy and easily cultivated, and people are learning to make good crops with fine yield where ten years ago they tell me they did not make anything. I have seen fields of corn yielding twenty-five to fifty bushels per acre. Some places in the northern and central parts of the state I saw large houses standing vacant that cost from \$1,500 to \$2,500 to build that were owned and occupied by happy, prosperous families, but the 1895 freeze killed their orange-groves. The trees sent up sprouts the next spring, but they were killed again the next winter. The people came from cities and did not know how to farm, and simply gave up and went back North. Now for four years I have seen people coming in, buying those places, farming them and raising peach-orchards and doing well. This is the secret of vacant houses in Florida. On muck land I have seen three fine crops in one year and a crop of crab-grass hay besides. Yet this kind of land is found in small quantities only. In less than one hundred yards from good rich land you may find the soil no good at all so far as we have yet learned.

I have seen peaches of the value of from \$300 to \$500 taken from one acre, and the trees bear at two years of age.

I have not seen a dozen days since I have been in the state that a farmer could not work on his farm. Of course, there are parts of some days when rain would hinder.

Mr. Davis then proceeds to describe his own County of Dade, which he says is the only county in the state in which citrus fruits have never been damaged by frost.

NOW then: These letters tell essentially the same things that Mr. Barber tells—but with a different personal touch. Anyone who will read this and Mr. Barber's article will get a fair idea of Florida—as fair as one can get without going there. I myself lived for a year or so along the coast from Pensacola west, and am able to check up some of the statements from personal experience.

We have read in Mr. Barber's article of the various diseases and pests of Florida. All these friends tell of the fleas, snakes, "red bugs" and mosquitoes. They say that these things are there, but that they are not troublesome in the drained and settled and cultivated sections. There are remedies for them all. Perhaps they are no worse than the flies of the North, the mosquitoes of many sections and the snakes in the wild places everywhere.

The greatest pests of Florida is the land-shark and real-estate pirate. You cannot believe their fairy tales. They are after your savings. Don't rely on them. Rely on your own judgment. If you haven't any judgment, stay where you are. Judgment is the making of wise choices. The man who has not the ability to do this had better stay where Providence or his ancestors has made the choice for him.

Hubert Smith

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FARM AND FIRESIDE is published on the 10th and 25th of each month. Copy for advertisements should be received twenty-five days in advance of publication date. \$2.00 per agate line for both editions; \$1.00 per agate line for the eastern or western edition singly. Eight words to the line, fourteen lines to the inch. Width of columns 2½ inches, length of columns two hundred lines. 5% discount for cash with order. Three lines is smallest space accepted.



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Vol. XXXV. No. 1

Springfield, Ohio, October 10, 1911

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SEMI-MONTHLY

Laugh if you can—no matter what you are canning.

How many farmers really work around their fruit-trees enough? The birds help all of the year, but they cannot do the work alone.

High thinking is all right, but it should not be so high that it is out of reach of the hands.

Secretary Wilson

THERE is a general demand for the resignation by James Wilson of the office of Secretary of Agriculture. That his prestige has suffered greatly in recent years there can be no question. The secretary is a small-bore politician where politics are concerned, capable of the cheapest trickery. That is his weakness. He let Pinchot have his own good way for years, and should receive credit for it; but he dodged and truckled to influences which he should have defied when it came to the test, and he should bear the blame of that. He had dodged and truckled with reference to the issue in the Wiley incident. He has lasted as secretary through three administrations. Those who say that his official longevity is the result of his ability to change as quick as any administration are not without proof of their assertions. He has always been a politician of the machine sort, ever since he appeared in public life as "Tama Jim." He has never once stood for the interests of the farmers as against their plunderers, so far as the present writer can recall.

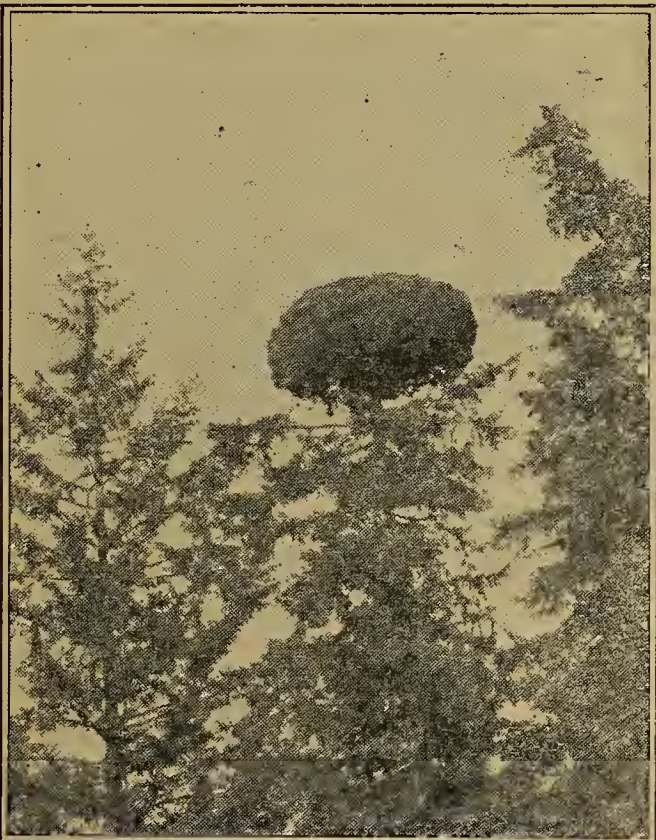
But, for all that, James Wilson will go down to history as the great Secretary of Agriculture. He took the portfolio, discredited by such incompetents as had gone before him, and by the sneers of J. Sterling Morton, and made it the great agency which it now is for the accomplishment of good for the agriculture of the world. The work done by Doctor Knapp under his administration is alone enough to render it a triumph. In farm management, in entomology, in every branch of scientific farming, the department under Wilson's management has risen to usefulness and power. He has reformed the crop-reporting system until it commands the respect of the best statisticians. He has raked the world for new plants. Along some lines he has even shown courage. He has allowed Milton Whitney to continue his investigations in soils, even against the opposition of the scientists who have ever had great influence with him. Whitney may be wrong, but his work should be completed so that it may be so demonstrated, or shown to be right.

Taking it by and large, what reason is there to demand Wilson's resignation, while his fellow cabinet ministers are allowed to retain their places? Call the roll—Knox, Wickersham, Nagel, Stimpson, Fisher, Hitchcock and the rest—and where is there a man among them who has the record for real achievement possessed by James Wilson? Secretary Wilson is old. He has not the strength he had when McKinley called him to the cabinet; but, on the whole, he is as good a man as he was then. We can derive no pleasure from the thought of seeing him thrown to the wolves which are howling on the track of the Taft administration.

Climate Made to Order

A FERVENT soul has sent us an article in which it is proposed to change the climate of the more arid regions of the world by creating twenty million artificial lakes. This touches a popular error so neatly that it is well to take a look at the proposition. Whence comes rain? From the air, of course. But where does the air get the moisture? From the ocean. Not from the rivers, the lakes, or the newly-planted groves, or the evaporation from forests. All the evaporation from all the land and the streams and lakes and swamps does not contribute more than a fraction of one per cent. to the rainfall. Just think of it a moment. The ocean surface is three fourths of the area of the globe. It is

broadest where the evaporation is greatest—near the equator. It furnishes a thousand times as much surface to the sun's rays as all the waters of all the land surface. And the winds that bring the rainfall to your location do not get their moisture in your vicinity at all, but from regions hundreds and often thousands of miles away. Our semi-arid and arid regions are dry because the mountains cut off the rain-bearing winds from the Pacific, and not from any lack of forests or lakes or streams. If all Kansas were made into one lake, there would be no more rainfall on it than now falls on Kansas. If it were all made into a forest, the cooling of the air might favor precipitation, but that is another question. The point here is that the creation of the twenty million lakes would have about as much effect on the climate as the digging of twenty million post-holes. It has less merit than General Dyrenforth's sky-bombardment as a rain-making scheme. Sorry to puncture a bubble, but climates neither change nor can be changed. The farmer must make up his mind to meet the droughts—he cannot escape them by means of artificial frog-ponds nor the firing of bombs in the air.



Formed by Nature

A DOUGLAS fir growing near Sodaville, Oregon, which, instead of coming to a point at the summit as is usual with these trees, has spread out into a perfectly symmetrical ball twelve feet or more in diameter and supported on a stem not over six inches through.

The ball is at the summit of a tree which measures eleven and one-half feet around, five feet above the ground, and is between fifty and sixty feet high.

The whole appearance is as though someone for a joke had shaped it with shears like the ornamental trees often seen on lawns, but this is, of course, impossible, due to the height and dimensions of the subject. The tree grows in an out-of-the-way corner of the foothills where few ever see it, but it has been known for many years.

LESLIE HASKIN.

Some of the would-be benefactors are like the sons of Jacob, seeking to lift their brother out of the pit only to sell him into slavery.

It is Ready

Send to-day for a FARM AND FIRESIDE Annual Index. Address the Index Editor.

A nuisance is a man who shows up with what isn't wanted, where he isn't wanted, at the time he isn't wanted.

Good Work by Lorimer

SENATOR LORIMER of Illinois is now doing some of the best work of his more or less public career. He is on the stump opposing direct legislation. Providence seems to be very good to the cause of direct legislation. With Mr. Lorimer in the open against it, there should be no doubt of its success. He asserts that the mob will rule if I. & R. become the law in Illinois. One wonders what the mob could produce worse than Lorimer. He is the flower of the caucus-and-convention system, and therefore believes the common people incapable of governing themselves directly. A certain measure of democracy having resulted in sending him to the Senate of the United States, beginners in the study of government might be excused for doubting the workability of the entire democratic scheme of things. Still, there is nothing to which we can return save monarchy, and we shall hardly try that, even under the disgust caused by Lorimerism. Perhaps we had better march on to real people's power—leaving him and his kind behind. "The cure for the evils of democracy is more democracy."

Spread Grimm Alfalfa

FIFTY-FOUR years ago, Wendelin Grimm, a German farmer, introduced into Minnesota a kind of alfalfa which he brought from Germany. It was not hardy, but Grimm was possessed of a determination suggested by his name, and persisted, year after year, in planting seed from the plants which survived the hard winters.

Thus he bred a new alfalfa which is hardy in all our Northern States where it has been tested, even where the commercial alfalfa freezes out completely. The ordinary alfalfa was introduced into California only a few years before Grimm started his culture of it in Minnesota, so that in the Grimm alfalfa we have a variety which has been growing as long in the Northwest as the other in the Southwest. But, while whole states have been enriched by the ordinary alfalfa, the whole area now planted to the Grimm is estimated at only from three thousand to four thousand acres.

The reason for its slow spread lies in the difficulty in saving seed from it in Minnesota where it is established. The climate is too wet. But farther west, in South Dakota, North Dakota and eastern Montana, the conditions seem favorable for a great alfalfa industry wherever the summer is not too dry, or where irrigation can be practised. Large areas in these states should be as much benefited by the Grimm alfalfa as Kansas has been by the ordinary variety. The seed is sure to become immensely valuable. Farmers in regions too cold for the common alfalfa, and favored with dry summer weather and proper moisture conditions, should get a start of the Grimm alfalfa, and form an association for selling the seed and keeping the strain pure.

There is good reason to think that a great demand will soon arise for Grimm alfalfa in the humid states of the North, from the Mississippi River to the Atlantic Ocean. These states need the seed, but will find its growth difficult. The dry Northwest should prepare to supply it. It is a product of which it seems to possess such natural advantages as almost to assure it of a monopoly. For good farmers, when they buy Grimm alfalfa, will be almost sure to demand that the seed be produced in regions in which the ordinary alfalfa will not grow. In no other way can its purity be made to appear even probable.

Grimm alfalfa looks much like any other, but has blossoms more variegated in blues and violet, and once in a while bears a whitish-yellow flower. It has been called "variegated alfalfa." Spurious seed is on sale, but nobody who knows what the bloom of the ordinary alfalfa looks like need be deceived after the first year.

Dope for the Dirt

By Eugene Wood

"SOME says the liver is the lungs, an' then ag'in some says it's the lights. But the way I look at it, the liver is the main artery; keep that clear an' you're all right."

With such a plain and easily comprehended theory of medicine—no hifalutin' talk that common people cannot understand, no jaw-breaking words as long as from here to New Caledonia—the Art of Health naturally resolves

THE fact is that most people look upon the soil as a reservoir from which may be drawn unlimited amounts of nature's products whether anything is ever added to the bulk supply or not. It can't be so with the soil forever, for nature don't work that way. But, on the other hand, an indiscriminate use of plant-foods—for a plant needs food just the same as does an animal—is not to be advised. The soil needs study. Yes, more than that, the soil on the home farm needs study. If this study is made, there is little chance for mistakes in the fertilizing of that soil.

of always getting a predetermined reaction. The belief is now that the human body has been traveling through

an unfriendly world for a great many years—a great many thousands of years, maybe millions, I don't know—and that in that time it has developed defenses against contagion, and little organisms floating in the blood that act like constables to "jug" marauding intruders, and that the blood itself takes on new characteristics when attacked. All that is needed to keep well and to get well is to maintain the fortifications in repair and to provide for the army of constables. This is done by nourishing food, plenty of pure water and fresh air, by enough work and enough play and enough sleep. By being happy, in other words. Under such conditions a man would hardly get sick. And if he did get sick, he'd get well. And if he didn't get well, probably he'd only be wasting his time being alive anyhow. The widow could do better with his insurance money than with him.

Anyhow, it has come around so in the march of progress that if you hear that So-and-so is all the time taking Doctor Hardman's Compound

Extract of Prune-Juice and Bug-Juice, and every time he has the opportunity is popping down his throat one of these Punk Pills for Puny Persons, you jerk your head back and wrinkle up your nose. You've got him sized up. He's what Professor Harry Thurston Peck would call a "yap."

Some, to be sure, make their tree so straight that it leans over on the other side. Rebounding from all this doping and dosing, they go to the extreme of denying that anybody ever is sick; they just imagine that they are, that's all. If the clinical thermometer shows that their temperature is 105, why, that's only another example of the wonderful power of mind over matter. They just think they're feverish, and the mere thought is enough to make the mercury in the tube swell.



"Aunt Hannah Phibber—Her testimonial"

itself into taking Doctor Loosener's Large Liver Lozenges when you feel kind of out of kilter, but, for the most part, "toning up the system" all the time with Ryan's Real Rotgut (see photograph and testimonial of Aunt Hannah Phibber, who will be 217 years old come the seventeenth day of next January, and who ascribes her long living and tall lying exclusively to the use of this marvelously pure whisky), a wineglassful before and after each meal, and as many times in between as you feel you need it. Maybe the remedies are Doctor Hardman's Compound Extract of Prune-Juice and Bug-Juice, or Punk Pills for Puny Persons, but the principle is the same: they cost a dollar a bottle and are for sale by all druggists. Whatever their names and whatever their "ingredients," as my friend Mat King says, there are always earnest, honest, conscientious, well-meaning recommenders who don't make a penny out of it, but who sincerely advise you: "Well, now, I tell you what you do. You get a bottle of this or that dope an' it'll c-yore you right up. It did me. An' if it don't do you no good, it can't do you no harm."

The more earnest, honest, well-meaning and sincere, with no other interest than your good, such recommenders are, the better it suits those who are so crazy to make money that they don't care what they do so long as they make money, and have come to the conclusion that selling dope for a dollar that costs them a dime is a pretty good business proposition. The more bottles they can sell, the more money they make. If they could, they wouldn't put a man in perfect health with one bottle. They want steady customers, and there is no steadier customer than a man with the whisky habit, or the morphine habit, or the cocaine habit, or some other drug addiction, so they put these things into their stuff to "tone up the system." I am a man that loses his temper and gets unreasonable at times, and this is one of the times when you must make allowances for my unfortunate disposition. So when I say that I think that Doctor Hardman and the manufacturer of Ryan's Real Rotgut ought to be so far into the interior of the Bad Place that a pigeon couldn't fly there in a thousand years, just consider the source. You must remember that this intemperate language comes from a man that doesn't approve of making drunkards and morphine maniacs and cocaine fiends out of unsuspecting innocents just because Doctor Hardman and Mr. Ryan want to become rich suddenly.

But you can see what I'm driving at. If Doctor Hardman can get honest, earnest, sincere people to recommend his dope, why, that's nuts and raisins for Doctor Hardman.

It used to be that every back yard was piled with empty "patent" medicine bottles. ("Patent" medicines are not patented, by the way. Couldn't be.) People used to have the notion that for every disease there was a remedy if it could only be found, and that the nastier it was, the surer it was to cure. But it's kind of getting around now that drugs are poisons, foreign substances, repugnant to the system and producing their beneficial effects only by the efforts of outraged nature to get rid of the cussed stuff at any cost. It is now held that only a very discreet man who knows that drugs are dangerous and knows just how far to venture with them should be intrusted with their administration. It becomes increasingly apparent that the human system is not quite so simple as it might seem to those who hold that "the liver is the main artery; keep that clear an' you're all right." It becomes increasingly apparent that the human system is not even a container into which you can slop this chemical and that chemical and be sure

stores, price one dollar a bottle, costing ten cents to make and worth maybe not that. Whatever it was made of, it was something the soil had to take all the time like any other patent medicine. Listen to the sincere and disinterested recommenders of these dopes for the dirt, and you cannot escape the conviction that

agriculture struck the virgin soil of this country not a minute too soon. A few more years of rotting vegetation and animal manures (woefully deficient in potash), and the virgin soil would have been a goner. You would have had to put boughten fertilizer on it to raise wild mustard. It is a dark mystery to me how ever the farmers in the old country could go on raising crops year after year for thousands of years before commercial fertilizers were discovered, and when all they had to do with was working the soil so that the sun and air and moisture could get at it, stable manures and green manures and a rotation of crops experimentally determined. It doesn't seem reasonable that they could get along without a single sack of chemicals for centuries and yet increase crop yields. But it is the fact, and the fact always has to be reasonable. A dark mystery.



"They want steady customers"

But a mystery is always a challenge to some, a gauntlet thrown down with a "Take it up who dares!" Always somebody takes it up. And he has to dare. He has to have the nerve to declare—I don't know whether rightly or wrongly—that the soil is not so simple a proposition as it looks; that the soil is not a mere container into which you can slop this chemical and that chemical and certainly get a predetermined reaction; that the soil, like the human body, has a *vis medicatrix naturæ*, a natural ability to pure itself. And, just as the human body is strengthened, not with drug-store stuff, but with food and water and air and exercise and sleep and play, so the soil is brought up into its best condition, not with boughten stuff and stimulants that excite it like Ryan's Real Rotgut, but by natural recuperative processes. That's what they say. I don't know whether it's true or not.

There are all sorts of earnest, honest, well-intentioned persons, interested only in your good, who will just about take the top of your head off if you suggest that the soil can get along without dope for the dirt just as the body can get along without daily dosing of Doctor Hardman's Compound Extract of Prune-Juice and Bug-Juice. They are sincere, I'm sure. But I'm a sort of clairvoyant, and behind these sincere people I can see old Doctor Hardman's ugly mug, the sordid, greedy face of a man crazy for money, ready to do anything that there is quick money in, anxious only to get it, no matter how. I don't like Doctor Hardman.

I was talking with a man the other day. He said he was connected with the Standard Oil.

"Perhaps you can tell me something about gasoline that I want to know," I said. "This eighty-six-degree stuff—"

"Oh, I'm not in that at all," he answered me. "I'm in the fertilizer end of the game. You know the Standard Oil manufactures fertilizers."

The rest of our conversation wouldn't interest you, so I won't give it. We'll talk about this again some time.

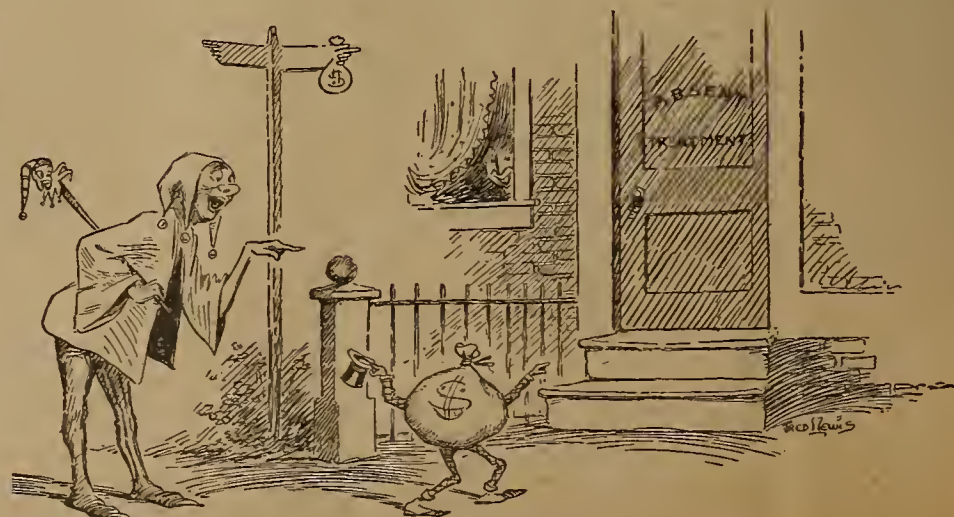


"The widow could do better with his insurance money than with him"

I admit right here that there is a lot in this doctrine. You know there is one born every minute. If you can put up a line of talk suitable to that class of people of which one is born every minute and can keep a straight face long enough for them to get out their pocketbooks and hand 'em over to you, why, you're just naturally bound to die rich. You can't help yourself. If you're not at home, they shove the money under the door for you. That is what is called "Absent Treatment." A lot in it—for those who can keep a straight face.

But be that as it may, you and I and the other sensible people in the world have come to the conclusion that there is a happy medium between 'doping yourself all the time, and letting on that there is no such thing as being out of kilter. We try to preserve a favorable condition for the body by a nourishing diet (in so far forth as the Meat Trust permits), by pure water, fresh air night and day, by just enough work and play and sleep. We keep clean so as to avoid chances of contagion and manage to wiggle along without drug-store stuff except upon emergency, when we call in expert advice.

It occurs to me that the soil and its treatment are somewhat parallel. The soil has been assumed to be a simple proposition. When it got out of kilter, you gave it a rude jolt with calomel and jalap, so to speak, or perhaps Doctor Loosener's Large Liver Lozenges. Then you kept it up with daily doses of Ryan's Real Rotgut or Doctor Hardman's Compound Extract of Prune-Juice and Bug-Juice, or some other stuff for sale at all drug-



"You know there is one born every minute"

Live-Stock Returns—A Comparison

An Investment with Sheep

By Frank Kleinheinz

A YOUNG man who has worked out on a farm by the month, and who has saved his earnings carefully, has enough money on hand to buy himself a small farm. After the land is purchased, he has \$150 left which he intends to use for the purchase of some live stock, such as a couple of cows, some hogs, sheep or poultry.

Before purchasing any stock this young man will naturally wish to know which class of stock will return the largest profit from an investment of \$150. In the following is presented a fair estimate of the net returns that any young man who is willing to give stock the proper care can realize from such an investment in sheep.

With only \$150 to invest it would be out of the question to buy high-priced stock. Since in sheep husbandry a rapid improvement can be made in the flock by using a good pure-bred sire, it will not be necessary for the young man to pay high prices for his ewe flock. He can, therefore, be advised to go to any of the leading sheep-markets and select a bunch of western yearling ewes, which he ought to be able to purchase for \$5 per head. However, he should be careful in making his purchase that he does not buy any ewes infested with scab or foot-rot, and he should also be able to judge



These Montana ranch ewes cost \$2.25 a head

their ages by their teeth so that he will not get old ewes, perhaps with loose teeth and broken mouths, as this kind is by no means profitable. If he is not a good judge of sheep, he should get someone who is familiar with sheep to assist him.

As he will wish to raise sheep for both mutton and wool, he should select the ewes with broad, low-down, blocky forms, good length of wool and all the density of fleece possible. Such western ewes will probably be crosses between mutton rams and the Merino range ewes. Since these ewes possess a good deal of the Merino blood, they are hardy. Such range stock is also generally free from parasites such as stomach-worms.

In order to breed these ewes and raise lambs, the young man will have to purchase a ram for his flock. As little improvement can be made in the flock without the use of a pure-bred sire, a pure-bred ram should be secured. Type and the more fancy show points are not essential in breeding sheep for mutton and wool as for raising show sheep, therefore a ram can be secured for a reasonable price which possesses good mutton form, but lacks the fancy points, and which is therefore objected to by the breeders of show animals. A ram of this kind of any of the mutton breeds can be secured for about \$25. Preferably a yearling or a two-year-old should be purchased.

If this ram is well cared for, after he has been used for two years he can be sold at a very small loss to another flock-owner for further use.

Cost of Keeping the Flock

After paying \$25 for his sire, the young man will still have \$125 to invest in ewes, and at \$5 a head, as stated before, he can secure twenty-five animals. We will say that he buys these ewes in the fall, when he may even be able to buy them more cheaply than the price given. If purchased when pasture is yet available, the ewes may be turned onto it. About November 10th, depending on the season and locality, dry feeding will probably have to commence. As the sheep will have to be fed until about May 1st, there will be a winter feeding period of one hundred and seventy days.

If two and one-fourth pounds of good, bright clover-hay and two pounds of roots or good, sweet corn-silage are given to each sheep per day, they will not need any grain until about three weeks previous to lambing, and from then until turned on pasture. During this period about a half pound of a mixture of equal parts of bran and oats should be given to each ewe every day, starting with a smaller allowance at first. From trials conducted at the Wisconsin Experiment Station such a ration, including the necessary grain, will cost about two cents per day per head, figuring the clover-hay at \$14 per ton, and roots or corn-silage at \$3 per ton. Therefore, the winter feed for the twenty-five ewes and the ram will cost \$88.40.

In the spring, from the twenty-five ewes there should be raised thirty-five lambs, if they are cared for in the proper manner. With the best care and management even more lambs should be raised.

About May 1st the ewes and lambs may be turned on pasture. Good pasture will furnish sufficient feed to keep the ewes in good condition and make the lambs grow vigorously. In order to supply fresh, succulent feed in abundance in the late summer and fall when pastures are usually dry and scanty, some rape should be grown on the farm, for this is a most excellent feed

for sheep. The rape can either be grown by itself or it can be grown in the small grain, or else it may be sown in the corn-field at the time of the last cultivation. From three to four pounds of rape-seed, costing about fifteen cents a pound, should be sown on each acre. Ten acres of rape will furnish enough feed to finish the lambs off for market in fine shape.

Let us now consider the cost of the summer feed for the flock. When sheep are treated as described later on, a fair charge for pasture for the season of six months would be seventy-five cents per head for the old sheep and about one third as much for each of the lambs. At this rate, the cost of pasturing the flock will be \$28.25. To this should be added \$4.50, the cost of the rape-seed. The total outlay for winter feed and summer pasture will thus be \$121.15.

Income from the Flock

Each sheep should shear at least eight pounds of wool in the spring, which at an average price will sell for about twenty-two cents a pound. The entire two hundred and eight pounds of wool from the flock will thus bring in \$45.76.

With fair prices, the lambs in the fall should bring at least \$5 a head, making a total of \$175. The total income from the flock will thus be \$220.76, leaving the flock-owner, after paying all expenses, a net profit of \$99.61 on his investment of \$150.

In the preceding estimate it has been shown what profit can be made in raising lambs for the general fall market. However, by raising early lambs, much more profit could be made on the investment. If quarters can be provided which are warm enough for the lambs to come safely in January or February, they may then be pushed along with a little extra grain. With such care the lambs should weigh from seventy-five to eighty pounds by May or the fore part of June, when there is usually a great demand on the market for spring lambs, and when such lambs have, in many seasons, brought from nine to twelve cents a pound live weight. The little extra grain required will be offset by the fact that pasture does not have to be furnished throughout the summer and early fall. At this time, moreover, the lambs will bring a larger sum of money than they would if kept until fall, and the money received may be invested again instead of being tied up for a much longer period.

Compared with other farm animals sheep do not require very much labor. During the winter they only need to be fed twice each day. Throughout the year pure, fresh water should always be supplied, and all the salt they desire should also be furnished. In the summer they need no other care except that during fly-time the owner should inspect the flock once each day to make sure that none of the sheep have become infested with maggots. Since sheep-manure is so valuable as a fertilizer, the manure from the flock will more than pay for the labor expended in caring for them.

It is not necessary to furnish a warm building for sheep, such as would be required for dairy cows. As

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\$150 in Hogs

By Dan T. Gray



It is no mere accident that our southern farmers usually introduce the hog before other kinds of stock. As a rule, our farmers are not blessed with large bank accounts, and when they realize that they need stock upon their farms they, as a matter of fact, select that kind of stock which requires but a small amount of capital to introduce and upon which returns begin to come back within a short time after the investment is made. The hog fills the bill exactly as far as small original capital requirements and quickness with which money comes back are concerned. The poor farmer—and the majority of our farmers are poor—realizes that the hog is the poor man's animal. And in the South the farmers want a kind of live stock that, while not requiring much capital to introduce, will not materially interfere with the usual and customary cotton-farming methods. That is, our farmers do not wish to turn away from cotton altogether—and it would not be wise for them to do so. Many of them would go into the dairy-farming business if it were not for the fact that the dairy cows take too much of the attention from the field. Here again the hog fits into the system better than any other kind of stock, except probably beef-cattle, but, just at the present time, beef-cattle require too great a money investment for the average farmer. In addition to the above-mentioned advantages of the hog for the average southern farmer, he yet has another point in his favor. The Texas tick keeps many a man of the South out of any kind of cattle business. While the tick can be controlled and eliminated, still it entails expense and requires care and attention to do it. The hog is not handicapped with any such pest as the tick. No diseases peculiar to the South infest our hogs. These points all taken together force our average



These seven lambs were raised by the four Montana ranch ewes in one year

farmer to think of the hog first and hold him in highest esteem when attention is drawn to farm live stock.

The South is peculiarly well suited, too, to the hog business. We enjoy the advantages of a warm climate, cheap shelter and long grazing seasons—just the conditions exactly for cheap pork production. Now let us suppose that one of our farmers has \$150 to invest in hogs. What income and profit can he expect to realize upon this investment under average southern conditions? We will suppose that the farmer buys four sows and one boar with the \$150. These would be good animals—better than the average hogs of the South, or of the North either. While they would be good hogs, they would not be the kind from which breeding stock could be sold, so we will further suppose that all of the increase is sold to the local butcher or packer at seven cents a pound on foot. We will also suppose that each sow produces two litters each year with six pigs at each litter. This supposition is a very conservative one, as the writer is associated with experimental work where the common sows of Alabama have averaged fourteen pigs each year.

One litter of pigs should come about September. When these pigs are handled under good southern farm methods, they will be ready to sell in May. It may be more profitable to get them ready to sell before May, but the writer doubts this, since cheap pasture crops can be used all through the winter months; it will probably pay better to make the gains rather slowly and on pasture than more rapidly and with the high-priced concentrated feeds. When the pigs are born in September, five acres of peanuts, which have been planted in

May, plus 1,800 pounds of corn, will carry the mothers, the twenty-four pigs and the boar up to December 1st. The pigs are now weaned and weigh around forty-five to fifty pounds each. The pigs are ready to fatten for the market; the mothers are ready to be carried through to the next pigging-time. And they can all be fed all winter on rape pasture. The pigs, of course, will need some concentrated feeds to supplement the rape. The boar and mothers will fare sumptuously throughout the winter on the rape-pasture alone. Four acres of rape will afford sufficient grazing for the sows and boar even when the rape is grown upon poor soil. Five acres of rape-pasture, plus a half ration of corn, will provide the twenty-four pigs with sufficient feed to make good fattening gains. By May 1st each pig will weigh around 180 pounds. During the winter-time the twenty-four pigs have eaten about 7,500 pounds of grain. The sows and boar have eaten no grain until the sows farrowed in March. Many farmers sell their pigs as soon as the rape is exhausted, but the good farmer puts them up in a pen and feeds them for about twenty days on grain before he sells them. To do this will require about 3,600 pounds of grain for the twenty-four pigs, but it is grain well fed. The pigs will make the gains at a profit during this short finishing period. When this period is at an end, the pigs will weigh 200 pounds each; this equals 4,800 pounds of pork. Four thousand eight hundred pounds of pork, at seven cents a pound, amounts to \$336. Now, what has been expended in making this 4,800 pounds of pork? First, 230 bushels of corn have been fed, which, at 70 cents a bushel, amounts to \$161. Second, five acres of peanut-pasture have been made. This will cost about \$8 an acre, or

5 Acres rape pasture for sows & boar in winter time	4 Acres of rape pasture for fattening the 24 fall pigs
5 Acres of peanuts for sows & suckling pigs during Sept. Oct. & Nov.	6 Acres of permanent pasture Bermuda Grass Burr Clover
10 Acres of corn	5 Acres of peanuts for fattening the spring litter
	5 Acres of soy beans for fattening the spring litter

Lay-out for hog farm of forty acres for four sows

Lay-out for hog farm of forty acres for four sows. Four acres of rape will afford sufficient grazing for the sows and boar even when the rape is grown upon poor soil. Five acres of rape-pasture, plus a half ration of corn, will provide the twenty-four pigs with sufficient feed to make good fattening gains. By May 1st each pig will weigh around 180 pounds. During the winter-time the twenty-four pigs have eaten about 7,500 pounds of grain. The sows and boar have eaten no grain until the sows farrowed in March. Many farmers sell their pigs as soon as the rape is exhausted, but the good farmer puts them up in a pen and feeds them for about twenty days on grain before he sells them. To do this will require about 3,600 pounds of grain for the twenty-four pigs, but it is grain well fed. The pigs will make the gains at a profit during this short finishing period. When this period is at an end, the pigs will weigh 200 pounds each; this equals 4,800 pounds of pork. Four thousand eight hundred pounds of pork, at seven cents a pound, amounts to \$336. Now, what has been expended in making this 4,800 pounds of pork? First, 230 bushels of corn have been fed, which, at 70 cents a bushel, amounts to \$161. Second, five acres of peanut-pasture have been made. This will cost about \$8 an acre, or



A Berkshire sow of quality

\$40 have been expended on peanut-pasture. Third, nine acres of rape-pasture have been made for wintering the sows and fattening the fall litter of pigs. These nine acres of rape have cost about \$72. The total expense for the fall litter has amounted to \$273. So, in addition to selling the farm corn at 70 cents a bushel, a

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An Investment with Sheep

[CONTINUED FROM PAGE 5]

long as they are kept dry and out of the rain and snow during the winter months, and are also kept dry underfoot and are protected from drafts, they will be satisfied and will thrive.

As weed-destroyers on the farm, sheep have no equals. In fact, sheep relish weeds and will often refuse grass and graze on weeds in preference. Sheep like a great variety in their feed, and can often be grazed very cheaply along the roadside or in the stubble-fields. In many sections of the country they are used to a large extent in clearing brush land, thus more than paying for their pasture.

In the winter the animals will relish a change from clover-hay and will enjoy cheaper feeds, such as good, bright corn-stover; fine, clean oat-straw, and pea-straw.

When sheep are grazing, they spread their droppings far more evenly than any manure-spreader that has ever been put on the market. They never decrease the value of the land they are pastured on, but, on the other hand, always improve it. For this reason the sheep is rightly called "the golden hoof."

\$150 in Hogs

[CONTINUED FROM PAGE 5]

profit of \$63 has been made on the fall litter of pigs.

Any hog-farmer in the South realizes the fact that the spring litter of pigs can be made more profitably than the fall litter. The summer pastures are better than the winter ones for fattening the pigs; the summer pastures will also produce greater gains, and produce them with a smaller amount of supplementary corn, than will the winter pastures. The spring pigs will come about March 1st. The pigs, mothers and boar can all graze the five acres of rape-pasture, which has already been mentioned, until June 1st, but the pasture must be supplemented by a half ration of grain after the pigs come. During March, April and May they will all eat about 2,000 pounds of grain along with the pasture. The pigs will now be weaned and graze a bermuda-pasture during June and July—or at least a part of July. During June and July the pigs will eat about 1,400 pounds of grain in addition to the pasture. The dry mother and boar will eat about 1,200 pounds of corn during the same two months.

Ten acres of pasture, consisting of five acres, each, of soy-beans and peanuts, will graze the breeding animals through August and afford the twenty-four spring pigs grazing until almost Christmas-time. The breeding animals will need no grain at all in August, as they are on soy-bean pasture. The fattening pigs should be given a fourth ration of grain in addition to the pasture. During the months of August, September, October and November the fattening pigs will eat about 3,600 pounds of grain in addition to the soy-bean and peanut pasture. Each pig will weigh about 200 pounds by December 1st.

They should now be put up in a pen and fed concentrated feeds alone for about twenty days; during this time they will eat 4,000 pounds of grain, and will weigh 220 pounds at the close of the period. Now the mother, the boar and the spring pigs have eaten practically 218 bushels of corn, which is worth \$152.60. Ten acres of pasture have been grown for them which cost practically \$80. The total cost, then, is \$232.60. The twenty-four pigs weigh 5,280 pounds at selling terms which, at seven cents a pound, amount to \$369.60. So, in addition to the corn selling at 70 cents a bushel, an additional profit of \$137 was made on the spring litter of pigs.

The fall litter netted a profit of \$63 above all expenses when pastures are valued at \$8 an acre and corn at 70 cents a bushel. The spring litter netted a profit of \$137. The total profit upon both litters was \$200, while the original live-stock investment was only \$150.

These profits can easily be realized in the South when the farmer makes full use of permanent and temporary pastures. No profits at all can be made upon hogs when concentrated feeds alone are depended upon. The writer believes that the above statements are conservative. For instance, the crops have been charged at the rate of \$8 an acre, when he has made cow-pea crops for \$5.42 an acre, soy-bean crops for \$7.64 an acre, peanut crops for \$7.80 an acre and rye and rape crops for \$5 an acre.

To simplify the discussion, the writer has used no concentrated feed along with the corn. The good farmer will, of course, realize the fact that in some cases tankage, cotton-seed meal or shorts could have been used profitably.

EDITOR'S NOTE—FARM AND FIRESIDE will, in an early issue, resume this subject of comparative returns to be expected from a given investment in live stock. We learn as much, sometimes, from the experience of others as from our own experience.

Write To-day

You may have an Index to FARM AND FIRESIDE by writing for it.

The Market Outlook

Lambs on the Markets

THE lambs which, in our sheep article of September 10th, I said might be expected to be sent to market in better shape than those with which Chicago had been flooded in June and July began to appear, all right, soon after the above date. They had been converted into well-finished desirable stuff for the packers, but, unfortunately, came in numbers sufficient entirely to break down the market, so that \$5.75 and \$6.00 became top in place of the \$6.75 and \$7.50 of a month before. A big clearance of desirable lambs has thus been effected, but they have all gone to the killers, the purchases by feeders being, as compared with those of last year, very light. This lowering of the fat-lamb values has been accompanied by an equally marked demand for fat wethers and ewes at much improved prices, while really desirable breeding-ewes from the West, of the grade class which would make desirable dams for spring lambs, have been sent from the West in considerable numbers, and have met with a fair call at from \$3.50 to \$4.00.

It is quite certain that the supply of meat of any kind, except perhaps, of hogs, is going to run next year considerably below the demand. This shortness will apply mostly to the great markets of the Middle West, and the great demand for prime lambs will be from the big eastern cities, because in them the demand for that class of meat has become almost a fad of the wealthy classes; and it is right here that the chance of the smaller farmers, who want to improve their land's fertility, and at the same time to get their share of this golden shower, is to be found. The lamb-breeders of many of the Western states—Idaho, Montana, Wyoming, Utah—have had good recent rains, and had already secured—many of them—a fair hay crop, and instead of selling feeders they will be likely to finish their lambs at home, and, it is quite possible, send them to Pacific Coast cities for a market. This may not affect Omaha very much, but it is bound to be felt in Chicago, Kansas City and St. Joe. Beef cattle have already been turned westward for a market, and why not sheep and lambs? Should these ideas turn out to have been built on good foundations, it will certainly be up to the man with his choice little flock of from twenty-five to one hundred ewes and his thoroughbred Down ram to jump in and fill the place of the range men who have been driven out of the sheep trade by homesteaders, who, in their turn, will probably be some years before they are able to do much in the breeding and rearing of live stock. There is yet time enough to arrange for breeding and feeding, if not what are called hothouse lambs—a very silly name for a hothouse lamb would surely be a dead one—yet a very well-finished four or five months old, sixty-five to eighty-five pound lamb; the sort which during the greater part of June, July and August just passed have been steadily selling at from \$7 to \$7.75. Here, then, you farmer of a medium number of acres, is your chance for quick money in 1912; but you must have your forage crops ready for the ewes and lambs.

JNO. PICKERING ROSS, Illinois.

Present Hog-Market Conditions

THE markets of all kinds of live stock are at the present time in a rather unstable condition. This is especially true of the sheep and somewhat true of the cattle, while the hog-market seems to be on the firmest basis of the three. The feeder element in sheep and cattle markets makes them more or less speculative, while the hog-market, for the most part, deals with a finished product. Hence the first-mentioned two are more apt to produce spectacular fluctuations. This season shows no exception to this principle. The outward movement of feeder sheep is but one third of what it was last year. Feeders generally are afraid to buy even at the present prices, because so many of them fed at a loss last season. Among the cattle-feeders the condition is much the same, but not so extensive. Much of the stuff which should go into the feed-yards of the corn-belt is going direct to the packers at a figure somewhat of their own making.

What does all this mean? It means that hogs will be the only stock which the corn-belt raises that will be available for the winter markets and these hogs will have to practically alone consume the now maturing corn crop. Present indications are that the farmers will feed and not sell the corn, for little pigs that went begging a month ago now find a strong demand at a dollar advance.

There seems to be a general confidence among hog-producers that feeding will be profitable this season in spite of the predictions made by interested packers and some disinterested parties studying country and yard conditions which might lead to an opposite conclusion. Hogs are at a fair

figure now and the supply for the past two or three years has not been sufficient to keep the packers' cellars from presenting a bare appearance. With the exception of a part of Iowa, Kansas, Oklahoma and Texas the corn-belt is now assured a good corn crop. This combination will inevitably bring about general heavy feeding operations. The packers have donned their bear apparel, as they usually do at this season of the year, and have succeeded in putting the market on a trend toward the usual winter price level. Just how far they will succeed in lowering it remains to be seen. Doubtless it will not go as low as a casual view would indicate, for the marketing will be steady and spread over a considerable period of time with but few of the consignments going to market before prime killing condition. The farmer has learned, or is rapidly learning, through the farm papers and institutes to conserve his resources. He has now produced a good crop of both hogs and corn under somewhat adverse conditions and he is not going to glut the market as he was wont to do in the past and thus create serious disturbance in prices. Confidence in profitable feeding, such as there is at present, and plenty of feed right at hand usually give the result of producing a finished product. There seems to be a condition general throughout the hog-producing districts that this year's pigs are not up to normal size for their age. The dry summer is responsible for this. Pastures lacked succulent grass, so the sows' milk-flow was lessened, and after weaning there was but little pasture for the shoats, hence the supply is not quite as large as numbers would indicate. Because of the unwillingness to buy feeding sheep and cattle there will be a scarcity of beef and mutton later on. Both of these factors will tend to hold the prices up. The present outlook is not materially changed since the last issue of FARM AND FIRESIDE—a steady, healthy market upon a medium basis, but not so low as the killing interest would like, as evidenced by the low figure of their prediction. LLOYD K. BROWN, South Dakota.

The Latest Thing in Dairying



"We might as well turn back now, John; the butter's come"

Competition in Cattle

ALL markets show that the country is not as anxious to buy cattle for the feed-lot as last year, and it is well that it is so, as a great deal of money was lost last year through buying high-priced feeders in the fall and selling with the crowd through the winter months at practically no advance per hundredweight above cost. From inquiry it seems that the large majority of cattle going to the country are not being put on full feed. They are going to be roughed through and fed for spring and summer.

This was what paid last year, but it is possible to overdo it, and it is always well to remember that, as a rule, it is generally safe to go against the crowd. Any man who has cattle in fairly good flesh ought not to let them lose it in the early winter with the idea that he can put it back again in spring at a profit. We have this year less competition than ever before from grass-fat range cattle, first, because there are fewer of them and, second, a large proportion of them are being shipped to the Pacific Coast. Such being the case, cattle carrying flesh will be scarce all winter and will bring good prices.

Stock cattle are not selling any higher and cannot go much higher. In fact, they are selling for less than a month ago. The chances are that they will be much lower. By lower, I do not mean lower in price, but in a month or two, when the cold weather starts in, they will be shrunk out so that even at the same price per pound they will be very much cheaper.

There is no prospect of cheap corn. Such being the case, renters and small feeders will sell their corn. I see no reason why there is not every prospect for fair returns this winter from feeding cattle, provided it is done in a judicious manner. If I had cattle in fair flesh, I would not hesitate to put them right on full feed now. I have cattle, contracted for October 20th delivery, going on feed as soon as they arrive.

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Crops and Soils

The Corn-Harvesting Problem

THE drought has been broken. Market reports show the confidence of men in corn more now than for some time.

During part of the summer the chances for the crop in much of the corn-belt did not look bright, as a whole. But the American people with undaunted spirit kept up the dust-mulch which stood the corn over till the delayed rains came. Then how it grew. The tassels shot skyward. The ears popped out. The pollen fell and fertilized the grain, while old Mother Earth, the foundation of all prosperity, sent the plant-food to the roots.

Another reason why we have as good a crop as we have is because of the large amount of good seed that was used. An extension worker from Iowa Agricultural College said that he never saw as perfect a stand as he counted in various parts of Iowa last summer. The skill and care of the people are responsible for that.

Some people have raised two crops on their land at once this summer. They have a double-decked farm. Often this year at the last plowing I suspect that you looked between the long corn-rows and wondered why you did not have some other crop growing there. Many men on their corn-fields did have. Most of them were successful. An eastern Iowa man sowed rape with his corn, and now he is about ready to turn in his sheep. The sheep will get a great deal of good food from the rape and will clean up the bottom part of the corn-stalks so that it will be much easier to husk the corn. Another man in central Iowa drilled soja beans in the corn-rows. These he will cut with the corn-binder as he binds the rest of it when he cuts the corn for silage. Next winter when he is feeding silage he will not have to feed so much concentrates, and twenty-five pounds will be equivalent to thirty pounds of the common corn-silage.

Some men are harvesting their corn by letting their hogs do it. Most of the men



Harvest Days

put a second crop on the land for this purpose. Rape seems to be the favorite. The hogs are started slowly by letting them have green cut corn for about a week before they are let into the corn-field proper. Pigs that give the best satisfaction are those that weigh from seventy to eighty pounds. These pigs will make good gains, and all they need to be supplied with is plenty of good, fresh water. After the corn that is down is eaten up, it is best to take a drag similar to the one that the stalks are broken with in the spring and drag over a portion of the field at a time, and in this way the hogs are able to get all of the feed. Returns in pork of from forty to fifty dollars are quite common both in actual practice and at the experiment stations. It also saves the bother of going out and snapping a load of new corn for the pigs when one is busy with his fall work.

But the hogs cannot care for all the corn. Much of it this year should be put into the silo or into the shock. The silo is the better of the two, and is a profitable investment for anyone who has cattle or sheep to feed. But shock-corn is also profitable. Cattle at the different experiment stations have made as high as three pounds per day when shock-corn was used alone as roughage. This year when the hay-crop is short, and the fall pastures are lacking, much of this must be used. Now, as the leaves are commencing to turn brown and the ears are turning heavily down toward the ground, we begin to think of the ways that this is going to be done. Will we take the old-fashioned hoe or the corn-knife, or will we use improved machinery? You have already seen whether the corn-binder needs repairs or not. The men who have stored their machines in the open air, as many have to do, had better look them over. Turn this job over to someone who likes it—he will do a better job. Kerosene is a fine thing to take the rheumatism out of those rusty joints. New chains must be bought. New sickles must be put in. The binder must be in first-class shape, so that when it starts it will go at top speed till the work is done.

Soon it will be time for other jobs. Seed-corn time is here. As the days of October pass, the seed-corn should be drying in the shed, or in some specially well-ventilated and protected place.

And then when the leaves give off that dry, crisp sound as they rustle in the wind,

and as the shucks shake dry and loose, we all know it is husking-time. There are two ways that husking may be done. We may husk by machinery or by hand. Many successful men are now using the husker. As yet there are some objections to it, and it is a trifle high in price for the small farmer. But the corn-husker will come. Inventive genius will solve the work that is now being done by men's hands. To-day is a day of invention. It is a day when the mind is supreme, and man's hands must take a second place. Farm laborers of to-morrow must be machinists as well as merely working men.

When the grain is in the crib, we all like to see the big broad backs of the cattle as they get the rest of the nourishment and the feed from those stalks in the field. Then we will sit for a moment and rest. We will be glad for the bountiful harvest. Some of the corn is stored. Some will be in the seed-house for seed next year. Some will be in the hogs that will be in the fattening-pen. Some of the corn will be in the silo and we will be getting the cattle well started on it. The rest of the corn will be in the shock, or in the crib, and from there it will be fed to live stock so as to keep as much of the fertility as possible on the farm. All of these things enter into the problem of profitably harvesting the corn-crop. CARL N. KENNEDY.

Corn-Husking Conveniences

A way to save work in husking is to make "loaders" of strong burlap or canvas, four or four and one-half feet square; a loader is laid down at each shock and the ears are thrown on it. When a load has been husked, two men pick up the loaders, one at a time, and dump into the wagon-box with a swinging motion. This will require twenty or more "loaders." If the wagon is kept in the field while husking, a smaller number will do.

A wagon suited for throwing the corn directly into the box can be constructed easily



FIG. 1

and cheaply, as in Fig. 1, and will be found convenient for easy loading and hauling of other things. Two long pieces of three-by-four-inch stuff hold suspended by long wagon-box straps a box of about the depth of ordinary wagon-box with the side-boards on; the depth, length, etc., however, may suit the builder, but the breadth must match the front gear of his farm wagon. A six-by-one-and-one-half-inch plank, mortised in under the front ends of the side pieces, rests on the bolster of the farm wagon, with the king-bolt in a hole bored for it; and the rear wheels of the wagon are placed on an axle on the corn box, made from an old wagon axle or heavy scantling, using thimble skeins to suit, or rounding the ends and using linchpins. An endgate can be put in the rear of box.

Fig. 2 shows a device that saves fodder, time and labor in husking either in field or barn. All parts, except slat table, etc., are made of one-by-four-inch boards; two base pieces (AA) are each six feet long and two pieces (BB), each three feet, with uprights raising table one and one-half or two feet from ground; cross-pieces two feet long. A windlass (C) is arranged in front crosspieces as shown, and a rope looped at one end tied to top pieces near where windlass shaft comes through; a small box (D) holds twine; put ball of twine in box, bringing up string through hole in box and through a small staple in top cross-piece. A few more braces than are shown will be necessary. A shock of corn is thrown on the slats, the husker seats himself on middle cross-board; the rope and twine have been drawn through under the seat and lie on ground; as the husker proceeds, he drops a small bundle of fodder at a time back over his head into the space between his seat and the windlass, an operation easily done with practice, or rises and steps over it, sliding it into place. When the whole shock has been thus deposited behind him, the rope is brought up around it and the loop slipped over short end of windlass handle; a few turns tighten fodder as much as required, and the twine being brought up around it, the bundle is soon tied.

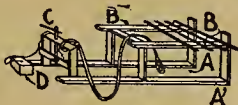


FIG. 2

For two men husking together the easiest and best device is the portable stand (Fig. 3).

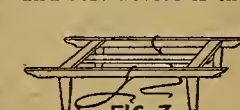
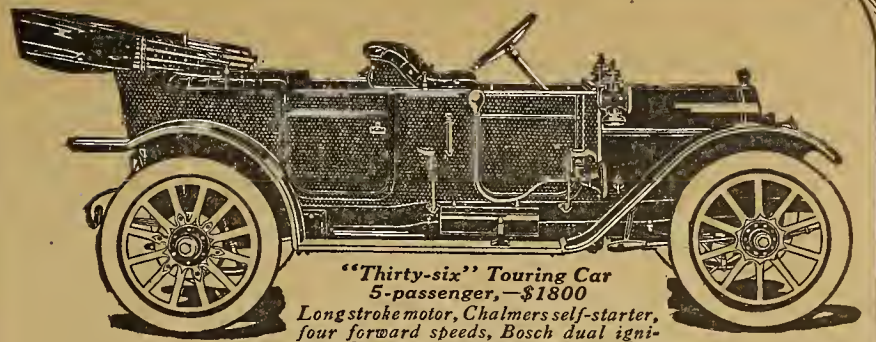


FIG. 3

Size is governed somewhat by size of the shocks; about 8 to 10 feet long, 3 to 4 feet wide and 1½ feet high; side pieces project about 1½ feet at each end; a piece of rope is tied to each piece; the whole stand should be as light material as consistent and be braced well to make steady. Carry to the shock and tip up on one side against shock; cut shock loose if necessary, and throw one of the ropes around shock near top; tip the stand back on its feet, bringing shock on top of stand, which is then picked up and moved to desired spot. Huskers seat themselves on opposite sides of shock, and when each worker accumulates enough fodder to make a bundle, he either lays it loosely at one side of stand until done or ties it and sets in the fodder-shock. J. G. ALLSHOUSE.



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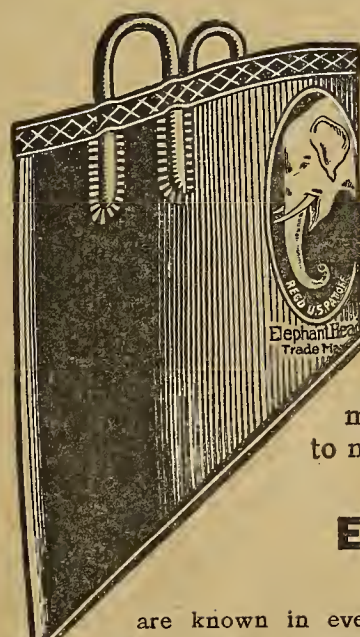
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Garden and Orchard

Buying Nursery Stock

THIS is the time of the year to look ahead toward buying trees for resetting the orchard or planting a new one. The question whether to plant in the fall or spring is a mooted one and, after all, depends chiefly upon the locality. It is argued that trees planted in the fall become better established and will, therefore, make a better start the following spring. That is the case in mild climates. But in the North, where severe winters may kill even old trees, it is another matter.

Transplanting destroys the small feeding roots, which are necessary to replenish the moisture carried off by cold, drying winds. Hence it cannot be wondered at that young trees, forced to rapid growth in the nursery, often fail to survive the winter.

When to Buy Nursery Stock

Probably the best plan for most localities is to buy the stock in the fall and heel it in for the winter. To heel in the trees, separate them in the bunches and set them close together in a furrow. The furrow should be plowed wide and deep, in a place partially protected from the weather, but where the snow will not drift. They should be covered with earth until only a third of the top remains above the ground. The trees are thus protected from low temperature and kept in a more uniformly moist condition than is to be had in the nursery storage-house. Heeling in makes the trees lie dormant longer and thus makes it possible to spread the planting of the trees in the spring over a much longer time. Care should be taken to see that trees bought in the fall are well matured and not dug too early.

Nursery stock shipped in the spring, unless in car-load lots, is very apt to be delayed on the way and to lie in dry, warm places. I know of a shipment of trees last spring that was transported in the same car with a consignment of lime. The trees were delayed in transit, and when they reached their destination were naturally in very poor condition for planting.

Where to Buy Nursery Stock

It is sad but true that nurserymen as a class have not the best of reputations for honesty. There are, however, plenty of honest ones, and it is worth while to hunt them up. Many times an honest nurseryman is blamed for the mishaps and mistakes of the grower himself.

There are at least three points to be considered in buying nursery stock: trueness to name, quality of stock and price to pay.

It is a very difficult matter to avoid all errors in labeling. Deliberate mislabeling is, of course, unpardonable. But even reputable nurserymen "substitute" trees when out of the variety wanted. Substitution when the true label is given is often very annoying. Sometimes it may be a good thing for the buyer if he gets a standard variety instead of an unknown one of doubtful value that he has ordered through an ignorant whim. A certain old gentleman of my acquaintance a few years ago planted a five-acre "family

orchard." About "57 varieties" of peaches and apples were ordered. The nurseryman did him a good turn when he "substituted" for nearly all of these Elberta peaches and Wagner and Wealthy apples. It would be a blessing if ninety per cent. of the varieties now found in orchards were eliminated.

On the other hand, I have in mind an orchardist, then a very poor man, who ordered Elbertas for twenty acres. After four years of patient toil he found that only one fourth were Elbertas, and the rest a mixed lot of absolutely no commercial value. He bought in the spring when the dealer's stock was low. The Elbertas fortunately paid him enough to come out ahead on his whole planting, but how much more might he have made if they had all been what he ordered?

The age and kind of stock to buy is another point. Peaches and sour cherries should always be one year old from the bud; sweet cherries, pears and plums, one or two years; apples, one to three. In the Far West nearly all nursery stock is planted at one year, but in the Eastern States and Middle West most growers, except for peaches and sour cherries, prefer two years.

A general rule for selecting nursery trees is to find clean stock with good average growth for the age of the tree and a root system to match.

There has been such a demand for stock in the last three or four years that it is hard for the nurseries to keep up with it. The price of trees has more than gone up to meet the boom. Poor stock, of questionable trueness to name, is dear at any price. It is also a mistake to buy of a dealer who ships in stock from other sections of the country at a profit of two hundred or three hundred per cent. I know it to be a fact that sour-cherry trees, bought in Indiana for eleven or twelve cents, were sold at Sturgeon Bay, Wisconsin, last spring at thirty cents and upward.

This leads up to the question of where to buy. In general, buy of the local nurseryman who grows most of his stock on his own premises and where the grower can pick out his trees himself. The local man has a reputation to maintain, and it is to his interest to give satisfaction.

Much of what is said about acclimated stock is true. Buying from the local nurseryman, if he selects his buds and scions from healthy trees near-by, is certainly preferable to buying shipped-in stock. Most of the diseases of insect pests have been spread by means of nursery stock, in spite of all that government inspection has done. Though nursery stock can be, and usually is, fumigated, there is much evidence to support the theory that diseases of a functional nature may be transported in the stock itself. Peach yellows are believed to be spread very largely through budding from diseased trees.

A. J. ROGERS, JR.

Some rotten hay or straw scattered at the base of each orchard tree before winter sets in will prevent the roots near the surface from being damaged by severe freezing and also furnish a valuable fertilizer for the trees next spring.

Evaporating Fruit

ON MANY farms there is a very large surplus of fruit when it is impracticable to market it and yet it is desired to get something out of it. Some of it can be made into cider, but it will be more profitable dried. Then it may be bulked and kept till there is a market for it. There are a number of evaporators on the market with capacities varying from five to twenty-five bushels per day. These are made of light iron, and may be set up anywhere. If one cares to operate on a larger scale, the large stationary plants may be built. The one I have in mind cost only a few dollars, and had a capacity of ten bushels of green fruit at each filling. It takes five or six hours to make a run, so that by working overtime two runs can be made in one day, increasing the capacity to twenty bushels. However, following this same plan, one could be made larger or smaller. Since everyone has one or more old heating-stoves, in the summer one of these may be used for heating the evaporator. The construction of this form of evaporator consists essentially of a shaft four feet square made of three-quarter tongue-and-groove lumber extending from the floor to ceiling of the room where it is to stand, or, if it is made out of doors with a roof over it, seven feet will be high enough. A ventilator a foot square should extend above the roof, and ventilator openings should be made around the bottom, so that the air can circulate freely, but so that they can be opened or closed to admit as much air as needed. The lower three feet of this shaft should be jacketed inside with tin or sheet-iron to keep the stove from setting fire to the woodwork. A large door at the

bottom will admit the stove and fuel for it. The stove sits on the floor in the center of this lower compartment, and in arranging the pipe for the escape of the smoke several elbows and short joints should be used so that the pipe will make a complete circuit of the shaft as soon as it leaves the stove, then pass on the outside and be carried above the roof. This coil of pipe radiates more heat than would the surface of the stove, and passing on the outside below the space to be occupied by the fruit-trays makes the handling of the fruit simpler. Beginning eight inches above the coil of pipe, ways for carrying the trays are nailed to opposite sides of the shaft four inches apart. There will usually be room for ten or twelve of these ways between the heating-chamber and the ceiling. The trays are four feet long and two wide, made this size for convenience in handling. Thus two of them will occupy one of the ways. The upper door at which the trays are inserted is hinged at the bottom so that when it is let down it acts as a rest for the trays. It is needless to state that this door should be as wide as the evaporator shaft, and if the space above is no more than four feet one door will suffice, though one above the other may be made if it is so desired. The tray bottoms are made of galvanized wire netting, No. 3 being best suited for this purpose, though it may be had with a larger or smaller mesh. The trays are made by taking eight pieces of one-and-one-fourth-inch lumber two inches wide. Four of these pieces, two for the ends and two for the sides, are put together, the wire bottom stretched over this and the other four nailed to them, stretching the bottom between. These are reversible, and each one of them will hold half a bushel of green fruit. Trays of this length will sag in the middle unless supported in the center with a strip.

In the process of drying all the trays are filled and put in place, then the heat is gradually raised to about one hundred and fifty degrees. The trays nearer the fire will dry first, and where the evaporator is kept at work for several days it will be found better to move the trays down one tier at a time, removing one at the lower end when a fresh pair is put in at the top. Thus the fruit is first slowly heated near the top, and the moisture or steam passes out without going through the fruit that is drier. In this way the trays are moved down as fast as the lower tiers are dry enough to remove, the process being completed nearest the fire. Evaporated fruit should not appear as dry as when sun-dried. If a ball of it when taken in the hand slightly adheres, falling apart when released, it has dried sufficiently, and should be removed. When taken from the evaporator, it must not be bulked at once, but spread on the floor of a dry, fly-proof room where it is shoveled over every day for a week, so that it may be uniform. When cured sufficiently, it should be bulked in boxes and stored in a cool place.

The trade usually demands that apples be bleached, and this consists of subjecting to the fumes of burning sulphur as soon as peeled. This may be done as soon as sliced, and before they have become discolored. It will probably be better to do the bleaching before slicing. A large box of some sort may be constructed for this purpose, being of sufficient size to admit a few of the trays at one time. The sulphur is burned below so that the fumes will pass upward through the fruit. An old iron kettle, into which a shovelful of coals have been thrown, will answer for burning the sulphur. Half a pound of sulphur or stick brimstone will be sufficient for a hundred pounds of green fruit, and the fruit should be subjected to the fumes for from thirty minutes to one hour. After the fruit has been bleached, it may be kept till the next day before drying, but the important thing to do is to bleach as soon as the fruit is peeled. This process of bleaching applies to apples only.

One usually dries just what the force at hand can handle, paring and slicing in the morning what can be evaporated in the afternoon. The sliced fruit can likewise be kept over till the next day, though, if apples, it must be bleached at once. This evaporator may be made of double size by having a partition in the center, onto which cleats are nailed for a double tier of trays.

Fruit dried in one of these evaporators is equal in quality to that turned out by the more pretentious plants, and the advantage gained in time and in the quality of the product is worth the small outlay. There will be absolutely no worms in fruit dried this way.

H. F. GRINSTEAD.

Old knots, rotten places and rough bark on the orchard trees are veritable breeding-places and winter quarters for various orchard pests, but a little reliable insecticide injected into these dens will effectively destroy both pests and eggs.

Parsnips for table use will possess a much milder and sweeter flavor if covered with some sort of refuse right where they grew and allowed to remain in the ground and freeze before using.

What business people call system is doing the things that should be done when they should be done and in the right manner. Some people need reminders to help do this and others naturally develop the right habit.

GARDENING

By T. GREINER

Solving Irrigation Problems

THE idea of making oneself independent of the weather, and being able to grow garden crops in greatest luxuriance in a dry time when other gardens are doing nothing, and perhaps to have good crops to put on the market just when the market is poorly supplied and prices rule high, has considerable fascination and temptation for some of us. I believe that irrigating garden crops is going to be more widely practised. An old reader in Kansas writes that he is preparing two or three acres for raising garden crops and thinks of installing an irrigation plant. His idea is to use tile at one and the same time for sub-irrigation and for drainage. The water will be obtained from a deep well, and pumped up with a gasoline-engine. The soil is a rich sandy loam.

Local conditions, especially the character of the soil and subsoil, and that of the water-supply itself, must be taken into consideration of, and determine, the selection of the style of water-distribution. There are three principal styles of irrigation. One is that in imitation of the natural rainfall.



A part of the Skinner system

This is best represented by the so-called Skinner system. Another is that by flooding, streams of water being made to flow down a slope between rows of vegetable or other crops. The third is sub-irrigation, or application of water from beneath the surface, by seepage either from ditches filled to the top, or through tiles placed a little beneath the surface of the ground, between rows of growing crops.

Sub-irrigation in most cases requires an immoderate amount of water. The best sample of this style of irrigation I have ever seen was installed years ago, on some flats near Mount Morris, New York. The soil is a deep sandy muck that absorbs moisture like a sponge. The main ditch was placed just under the face of the hill, on the upper side of the tract. This ditch was easily filled to the top from a small mountain stream, and the water could be turned, by opening flood-gates, into the smaller, open, ditches running at right angles to the main ditch, about forty or fifty feet apart, down into the outlet ditch at the foot of this tract. Flood-gates were placed where needed. The ditches could thus be kept filled and the water in any needed amount be allowed to seep through the porous soil until the moisture or seepage would meet in the center between each two adjoining side ditches. It might have been just as well to place all the ditches parallel with the first or main ditch along the face of the hill, each ditch being then on nearly a dead level and, of course, connecting these ditches by means of a supply ditch at the one side. This plan worked very well, but there are probably not many places where similar conditions exist and make this peculiar method of water-distribution feasible. This plan is not in operation any more, owing to the fact that the railroad, by building a dam, has spoiled the chances of drainage.

I once tried sub-irrigation (on a small scale) by means of placing tile lines about eight or ten inches below the surface between rows of celery, and turning the water from a big tank (on wheels) into the open end of each line. The soil in this patch is a strong loam not over ten inches deep and resting on clay or hardpan. Although the latter did not allow the escape of water downward, it required a big lot of it to properly soak up the dry top soil. I do not imagine that this plan would work on any spot having a porous subsoil.

Even flooding the land by turning a stream or streams of water between the rows, the latter running downward on a slight slope, will not be found feasible everywhere, as the water runs down into the lower strata faster than it can be supplied.

It is, of course, entirely out of the question to use lines of tile at once for sub-irrigation and for drainage purposes. Ordinarily, for drainage, the tiles have to be laid deep; for irrigation, shallow.

To our Kansas friend, and to others similarly situated, I would especially recommend a plan that is a modification of the flooding system. The water can be pumped up from the well into a tank placed at some elevation above the field to be irrigated. It may then be distributed over the patch, to any crop needing it, by means of home-made hose.

This is made of twelve-ounce duck, say a piece of thirty feet cut into three strips, doubled over once and then sewed together through the four thicknesses, with strong thread and long stitches, so as to form a hose. This can be made water-proof by means of soaking in a mixture of boiled oil and pine-tar heated together, then running the hose through a clothes-wringer and blow-



Celery-plants raised by irrigation

ing it up afterward, or it may be left as it is, just sewing the end up so the water cannot be run out there and will have to ooze out of the pores of the fabric the whole length of the hose and thus water the whole row along which it is laid, all at one time.

Here, where the rainfall during the greater part of the growing season is nearly sufficient and may just be supplemented by an occasional additional supply, I believe that the Skinner system of imitating the natural rainfall is the best means of irrigation known, provided we can get water under a pressure of fifty pounds, or nearly so. The water may be forced directly into the pipe system from the engine, or into an elevated tank, and then be distributed by gravity. On the South Lima, New York, muck lands, where I found an irrigation plant of this kind in operation, a big gasoline-engine was forcing the water directly into the pipes. Each pipe section was three hundred feet in length, beginning with two-inch pipe where the water is forced in, then reduced to one and one-half inch, then to one, and finally to three-quarter inch, with end closed. The water is squirted out of small nozzles placed four feet apart the entire length of the pipe. The streams can be directed to either side, and will cover a strip sixty feet wide, thirty feet to each side. This style of irrigation is mostly used for lettuce and celery, but will come just as handy for cabbages, cauliflower, the various vegetable plants and perhaps other garden crops. It gives all the effects of a good rain, and these beneficial effects were easily recognized on the various crops on the muck lands at the time of my visit.

Eggplants Will Keep

When the first fall frost is threatening, we gather a lot of the fair-sized eggplants and put them under shelter. They can be used as we want them, or sold as people may call for them, for many weeks to come. They are easy to keep. They are too good and too valuable to leave out in the garden to freeze and decay. If you have any, gather them.

If you have none, you should have them. Be sure to have them next year.

Mourning-Doves

THE mourning, or Carolina, doves are unlike the passenger, or wild, pigeons that once flew in large flocks over the land and that nested only in certain localities, for mourning-doves are found on every farm.

They are not birds of ill omen. Their song, if weird to some people, is only a love song and it is neither a sign of rain or that someone is going to die; it is one of the sounds in the grand symphony of nature.

The mourning-doves are one of the best and cheapest "helps" that the farmer has, they work for only their board. They



live on weed-seeds and waste grain. The wise ones in Father Wilson's department at Washington say that their record for weed-seed destruction can hardly be equaled, for as high as 9,200 weed-seeds, of various kinds, have been found in the stomach of a single bird.

And yet, for this beneficent service, and because they form in small flocks for company's sake, they are called "game birds" and men are allowed to shoot them for "sport." What a SHAME!

H. W. WEISGERBER.



Farms for the "land hungry" on half-crop-payment plan

Plenty of room in the San Joaquin Valley for ten times as many people as are there now. This wonderful valley is in the heart of rich and fertile California. It is 250 miles long and 100 miles wide. A farm is ten to forty acres of irrigated land. These "little farms" will produce the income for which you would need 80 or 160 acres "back east."

You can buy land cheap. You can live off it from the start. A few chickens, a cow or two, a little garden, pigs and alfalfa, make it a money getting proposition from the start.

It is a hospitable country. Every district welcomes the new settler. There are thousands of eastern people there now. Some of them are doubtless your old friends and neighbors.

The Santa Fe has no land to sell. Its only interest is to get more settlers into the territory along its lines. We are careful to tell only the exact truth about our country. We do not want to get settlers there who will not be satisfied after they are located. We are glad to answer all inquiries and to put you in touch with the people who have land to sell.

Won't you fill out the coupon below and learn about the land in this new country? Our San Joaquin Valley book is illustrated. There are letters from farmers telling of the success they have made. Perhaps some of them you know. You can see what they have done. You can see what you can do or what your son can do if you send him out to this new country where it is summer all the year 'round.

The climate is delightful. In June, July and August, of course, the thermometer goes to 100 degrees in the middle of the day. It is a dry, not enervating heat. As summer fruit is getting ripe, thus making money for everybody, and the nights are cool, nobody minds. January is like our June, and so vegetation grows all the time.

Under this all the year 'round growing season you can have something for market every month. Prunes and apricots in June and July. Melons and figs come in July and last until November. Oranges, lemons and grape fruit begin to ripen in November and one fruit follows another until February or later. February is olive time. Small fruits ripen in early spring. Alfalfa cuts four to seven tons per acre and is worth \$8.00 to \$18.00 per ton.

"A proposition that will interest you."

This is the title of a special circular about the wonderful plan whereby half of your crops pay for your farm. It is the most liberal plan one could wish. The initial payment required is not large.

You turn over only one-half of the gross proceeds of the crop from part of land each year till the farm is fully paid for. You pay only five per cent. interest on deferred payments.

It is desirable land and in one of the finest parts of the San Joaquin Valley.

Better get this circular at once as only a limited number of farms are as yet available and they will be snapped up quickly.

Tear out the coupon now before you forget it. Even if you cannot go for some time, begin to learn about this wonderful valley. Let us also send you free, our monthly immigration journal "The Earth." It tells of the opportunities afforded by the country along the Santa Fe, as well as the new developments being made every month in the San Joaquin Valley.

Now is a good time to go to see the land. From September 15 to October 15 the fare is only \$33 to California from Chicago, \$25 from Kansas City, with proportionate fares from other eastern points. Berths in Santa Fe tourist sleeping cars cost only about half the usual Pullman charge. A trip to California and through this wonderful San Joaquin Valley is well worth while.

Write now. Use this coupon. Ask us any questions you wish, too. We will be glad to answer and help you find just the location for which you are looking.

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General Colonization Agent, A.T. & S.F. Ry.,
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Comparison of the Distance Traveled by Earth and Bell Telephone Messages

The Orbit of Universal Service

In one year the earth on its orbit around the sun travels 584,000,000 miles; in the same time telephone messages travel 23,600,000,000 miles over the pathways provided by the Bell system. That means that the 7,175,000,000 Bell conversations cover a distance forty times that traveled by the earth.

When it is considered that each telephone connection includes replies as well as messages, the mileage of talk becomes even greater.

These aggregated distances, which exceed in their total the limits of the Solar system, are actually confined within the boundaries of the United States. They show the progress that has been made towards universal service and the intensive intercommunication between 90,000,000 people.

No such mileage of talk could be possible in such a limited area were it not that each telephone is the center of one universal system.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy

One System

Universal Service

Poultry-Raising

Whitewash

Its Use and How to Make It

WHITWASH, or lime-wash, is a very essential thing in the poultry-yard. It keeps lice, mites and vermin out and makes your houses lighter and sweeter, and is also an excellent disinfectant. Whitewash is best prepared from unslaked lime, which can be procured at a very reasonable cost. I make it a point to spray my hen-houses, brood-coops, brooders, etc., twice a year, in the spring and in the fall. Before spraying, the windows are taken out, as well as all nesting material, and all cobwebs and dirt are swept down. In spraying I use a spray force pump attached to a barrel containing the whitewash and which is easily moved about. Two men are required to do the work, one to pump and the other to handle the spray nozzle. Take great pains and soak well every crack and crevice. It only requires a short time to go over your buildings twice a year, and by so doing you will never be troubled with lice and, besides, it gives the buildings a good appearance and, above all, the cost is comparatively small. I have tried several methods of preparing the whitewash and have had very good results with the following method:

Slake in boiling water one-half bushel of unslaked lime, keeping it just fairly covered with water during the process of slaking; add to this a peck of salt, dissolved in hot water; three pounds of boiled rice, mashed to a thin paste; one-half pound of clear glue, dissolved in hot water, and one-half pound of Spanish whiting. These ingredients are thoroughly mixed together, strained and applied to the building as hot as possible. The rice and glue may be omitted from the mixture, but I find that if they are used the wash will stick better and will not peel off. Add water enough to the mixture so it will go through the sprayer without clogging.

I also use a whitewash mixture for outside work, applying it to the houses, yards and fences. This gives them a very neat appearance, lasts well and costs very little. Here are two recipes for making this outside wash:

Method No. 1—Slake in boiling water one-half bushel of lime. Strain so as to remove all sediment and add two pounds of sulphate of zinc, one pound of common salt and one-half pound of Spanish whiting, thoroughly dissolved. Mix to proper consistency with skim-milk and apply when hot if possible. If white is not desired, add enough coloring matter to produce the desired shade. Those who have tried this recipe consider it much superior both in appearance and durability to ordinary washes, and some have not hesitated to declare it much cheaper than paint

Farm and Fireside, October 10, 1911

and compares very favorably with some lead paints. It is much cheaper than paint, and gives the houses and yards to which it is applied a very attractive appearance.

Method No. 2—Slake in boiling water one-half bushel of lime and strain. To this add two pounds of sulphate of zinc and one pound of salt, dissolved in hot water. Thin with hot water to the proper consistency and add about a half pound of clear glue dissolved. For coloring add about three pounds of the desired coloring matter, such as painters use in the preparation of their paints. Yellow ochre will make a beautiful cream color. Browns, reds and various shades of green may be just as easily obtained.

If you have never used whitewash, get some lime and go over your buildings now, and again in April. You will be more than pleased with the results. A. E. VANDERVORT.

A Good Word for Turkeys

BY NATURE turkeys are great rangers, and one of the real essentials in raising them is plenty of room. This does not mean that they should be given their freedom to run where they will, for they are apt to prove troublesome to the neighbors in that case, but it is meant that their enclosure should be quite large.

No special building is needed for these birds. They will take up with most anything in this line, the chief danger being that they may be overcrowded, a thing they cannot endure. Any old shed or other similar building will serve the purpose. No special roosts need be furnished, although the birds like to get high up. Like all kinds of poultry, they ought to have dry and well-ventilated quarters.

If one be mating the birds for himself, he may well remember that not more than eight or ten hens should be given to one male, as otherwise the eggs might not be fertile. Where one has no grown-up birds, he may get a sitting of eggs and place them under a good hen. When hatched, give them a nice, dry coop, with a well-sanded floor and a little yard in front to run out in in sunny weather. Here they may be kept for a week or ten days. Their first feed should be crumbled hard-boiled eggs. After a day or two this may be mixed with crumbs of bread. When they are three or four days old, change the ration to bread-crumbs and oatmeal. Once in three hours they ought to be fed. Milk is fine for them to have before them all the time. Soak the bread-crumbs in milk, but press the milk out before feeding.

When a month old, the birds will take cracked corn and wheat for the afternoon meal and gradually this may be made their entire diet. At the age of a week the old hen and her chicks may be given their liberty, but get them in nights and look out for lice and wet places.

The battle against lice must be kept up to the end. There is good money in turkeys. The work is not hard, but the care must be close and the watch for vermin never-ending. E. L. VINCENT.

Building Up the Flock

NOW is the time to cull out the flock and begin to build for next season. I care not how carefully you may breed, a flock needs "evening up." Don't sacrifice a good hen because she is a yearling or even a two-year-old. She may have more good laying days than some of your pullets. It is always well to keep some older hens for hatching purposes, unless you intend using the incubator exclusively. They make better setters, as well as better mothers.

Decide on the size of flock to keep and then sort down to it, if you are fortunate enough to have raised enough desirable pullets to bring your flock up to this number. If not, it is a pretty good plan to be on hand "chicken day" at the market. Very often you can pick up a bunch of just what you want, even if you have to pay a premium of a cent or two on a pound for the bother of sorting them out. It will pay you.

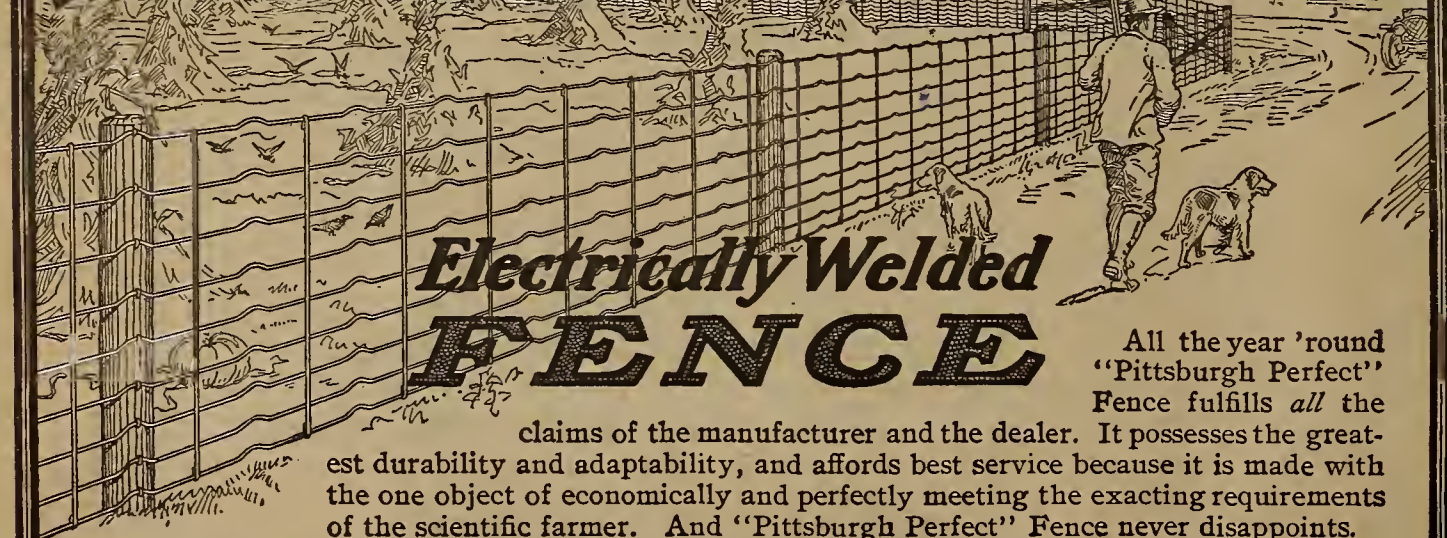
In "weeding out" your flock it is well to remember that the first prices on the old hens are usually best, and as few eggs are usually laid around the period of the molting season it is better not to wait for the few extra eggs, but sell the culls early.

Better a flock of one hundred hens all good workers than one hundred and fifty, of which fifty are "has beens" or "never wuzzers." That is the case of the profits on the one hundred cash customers paying for the loss on the fifty poor-pay ones. As far as you can find out, don't keep a hen who doesn't pay a profit. WM. J. COOPER.

Side Speculation

LAST November a neighbor offered me a hen and ten newly hatched chicks for fifty cents. Some people would say, "I wouldn't be bothered with chickens hatched on November 1st!" But I bought them, threw an old grain-sack over an old box laid on the side in my warm chicken-house, and began feeding them wheat, bread-scrap, etc. The last of March I sold eight of them for \$2.40. One was killed accidentally, and one was such a fine cockerel that I kept him to raise, and have the hen—a good Plymouth Rock—left. CLIFFORD E. DAVIS.

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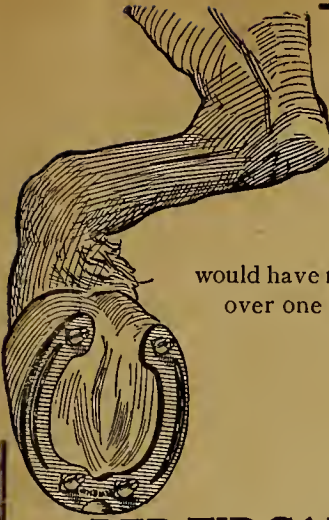
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Live Stock and Dairy

Silage vs. Corn-Fodder

A READER in southern Ohio asks what is the relative value of a given acreage of corn preserved by use of the silo as compared with cutting, shocking and feeding as dry fodder:

At the Vermont Experiment Station a field of corn was cut in the following manner: Two rows across the field were placed in shocks. The next two rows run through an ensilage cutter and placed in a silo. This system was followed, using each two alternating rows until the silo was filled. The dry fodder before being fed was run through a feed-cutter and fed in comparison with silage to dairy cows with equal quantities of hay and grain. The amount of green corn in each instance was 24,858 pounds. In the case where dry fodder was fed a production of 7,688 pounds of milk resulted, while in the instance of silage there was a production of 8,525 pounds of milk, an increase of 837 pounds.

At the Wisconsin Experiment Station, from 29,800 pounds of green corn 24,440 pounds of silage was made, and when fed with 1,648 pounds of hay and in conjunction with 2,884 pounds of grain, there resulted a production of 7,496 pounds of milk containing 340.4 pounds of butter-fat. From the same amount of green fodder 7,330 pounds of dry corn-fodder was made, and when fed with 1,567 pounds of hay and 2,743 pounds of grain, there resulted a production of 7,119 pounds of milk containing 318.2 pounds of butter-fat. In this instance by the use of the same amount of green corn, 71 pounds more hay and 141 pounds more grain there resulted 22.2 pounds, or 6 per cent. more butter-fat when silage was used.

At the New Jersey Experiment Station silage and fodder corn were compared for milk production in the following manner: A field of fifteen acres was planted to corn in rows three feet six inches apart, with the stalks eight inches apart in the row. The crop was harvested at the time when the ears had begun to glaze. Twelve acres of this corn was placed in a silo, the average yield of green forage per acre being 11.25 tons. Three acres were cut and shocked in the usual manner. After curing for one month it was stored in a barn, the average yield per acre being 4.1 tons of dry fodder. It was estimated that the cost of cutting, shocking and storing the fodder and running it through the feed-cutter was \$10.31 per acre.

Two lots of cows were fed silage and fodder respectively, and at the end of the first period the feeds were reversed in order that a true test might be conducted. The rations were so compounded that the fodder or silage furnished at least one half the total dry matter and two thirds of the digestible carbohydrates. The silage was eaten without waste, while a portion of the fodder was left uneaten. Both lots of cows gained in weight during the trial. The results which followed were that on the silage ration there was produced 12.8 per cent. more milk and 10.4 per cent. more fat than where the corn-fodder was fed. It was estimated from this experiment that about \$10 more per acre had been realized from the corn when preserved and fed in the form of silage than when fed as dry fodder.

Many other such experiments have been performed and without exception there seems to be a gain of from 5 to 15 per cent. in favor of preserving corn in the silo, as against cutting and shocking it. Like results are attained from practical experiments on farms where cows are fed, and it is the general rule that a feeder who has fed cows with silage and without is enthusiastic over the results attained by preserving the corn crop and utilizing it as corn-silage rather than as dry fodder. **HUGH G. VAN PELT.**

Feed the Ram

I HAVE had farmers buy rams from me before the breeding season opened and comment with pleasure on their healthy, thrifty, fat appearance. Later, after a month of heavy breeding, they would write back and complain because the ram was then thin and rough-looking. They never stopped to realize that when they took my ram he came to them in the right condition to do his work and that I advised them to keep him so.

When in heavy service, the ram must have extra feed. It is like putting a horse or team into hard work and expecting them to do as good work and keep fat without any extra hay or grain. They can't do it, the ram can't do it—both will pay well for extra care.

The best way to give the ram such care and feed is to shut him up with a good feed of hay and sound corn and oats at his convenience. Each night turn him with the ewes into an enclosure, removing him each morning. In this way he will be vigorous and will insure a heavier, stronger lamb crop. The lambs are the source of the profit, so arrange now to have a goodly per cent. of them. **J. C. COURTER.**

Goats as Grubbers

A FARMER'S son, of inquiring mind, asks for hints on killing crabapple-trees, large and small, sumac, dogwood, alder and locust.

In addition to the old, laborious grubbing of roots, cutting of sprouts and girdling of trees in late summer, there has been tried out of late years treatment with chemicals, but these have not proven a practical success.

It, therefore, seems to rest with the Angora and milch goats to hold in check or exterminate undesirable sprout-growth. The goats have shown their ability to conquer crabapple, sumac, hackberry, cedar, fir, sycamore, willow, wild rose, jimson weed, laurel, thistle, mullein and a host of other undesirable growths.

The dogwood, locust and alders do not appear among the sprout enemies the goats have bested, but the chances are that these must fall before them. From four to six goats to the acre will do the trick.

B. F. W. T.

Wool and the Wool-Market

No MAN can accurately forecast the future wool-market. Nevertheless all observant wool-growers have noticed from many straws the way the wind will probably blow, and they feel confident of a stronger, instead of a weaker market.

Already the buyers have come out of their winter of inactivity, and in the wool-centers of the Far West many good sales of wool have been made. Wool is a necessity and wool will eventually have a buyer at a fair price to the grower. Carefully store your wool, therefore, until you receive a fair price for it.

I realize that the small wool-grower is at a disadvantage and generally must sell to the small country buyer who buys the good, the poor and the indifferent wool all at the same low price. To get around this difficulty several growers could profitably pool their clips and thus have sufficient to pay for shipping to the cooperative warehouses or to the general markets.

When wool is low in price, then is the time when the man who has the poor grades of wool suffers for his folly. That is, the sheep-owner who allows his sheep to gather all the cockle-burs about the farm, and allows them to become filthy with chaff and dirt, finds that in times of low prices his poor-quality product is lower priced still. By keeping the sheep healthy and always growing, and in good physical condition, losses are eliminated.

Where the owner uses reasonable and sane methods of sheltering and caring for his flock, there will be good fiber when the buyer tests it.

Every flock-owner figures that his wool crops will bring money to add to his bank account, and rightly. But, as with his other money-making products, grow and market the wool with as good care as you do the other crops, or no profits need be expected.

J. C. COURTER, Virginia.

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Live Stock and Dairy

Hogging Down Corn

AT THE present time the one great cry of the American farmer is some means of reducing labor troubles and at the same time increasing the amount returned for the product grown. The matter of labor has already reached the point where it is no longer a mere matter of the outlay required to obtain it; but the matter has come to the point where many cannot get efficient labor at the time when they must have it, no matter what they pay. One of the times when the scarcity of help and the high cost of it makes itself known is at harvest.

Hogging down corn will do away with this problem entirely on a few acres. Besides that, on most farms and in nearly every case under record it will return as much for the corn while standing on the stalk as it will when the same corn is cut, husked, cribbed and later drawn to the elevator. Many characterize hogging down corn as a lazy man's way of taking care of the crop, saying that it is not good for the hogs and that the corn is wasted. But any method that will bring the same amount of money that the same amount of produce, plus a certain amount of labor, would bring through regular channels is profitable.

The greatest reason why many farmers, who have tried the method and have condemned it, have failed is simply because they have not done it in the right way. They, in most instances, have turned a bunch of thirty pigs loose on a field of ten acres. In such a case the hogs have had more to eat than they could handle. As a natural consequence they have puttered over a great deal and have wasted it. Do not give them more than they can handle. Fence off a small portion of the field and do not remove them to a fresh piece until the first is thoroughly cleaned out. We have found thirty-six-inch hog fencing a very good thing to have around for this use. Six posts set loosely in the ground will support forty rods as long as you will want it to be held up. Two men can take up that amount, move it a mile, stretch it and have it tacked in less than half a day.

As a rule, we have always run the pigs on clover throughout the summer, feeding a little ear-corn each day. As soon as the green corn begins to harden, we have begun by jerking the ears and feeding this in connection with the ear-corn, though gradually decreasing the amount of the latter until the jerked corn is fed exclusively. At that time of the year we have use for the fodder in starting cattle on feed. Then, as soon as the corn gets fairly hard, a portion of the field is fenced off and the hogs go in. As far as possible we always aim to have some sort of shelter for them, so that they can come out of the sun at noon. We have never lost any hogs by not having shelter, though it is best not to run the risk. The pigs begin by eating the ears that they can reach, and it is seldom that they begin to break down the corn until the lower ears are exhausted. It is really surprising to note the few times that they go away leaving a half-eaten ear behind.

C. A. WAUGH.

Profit in Pork

OFTEN have I thought it a loss to sell pork by the carcass for eight and one-half or nine cents per pound, when by some extra work one could more than double the money. Last winter, not raising enough pork, I bought a hog, weighing four hundred and forty-one pounds, at nine and one-half cents per pound, costing me \$41.90. I pickled the hams and at Easter sold them for eighteen cents per pound. All the rest of the meat that was suitable my husband and son ground up into sausage, which I seasoned and stripped into cotton rolls of five pounds each. I buy the cheap factory cotton which costs six cents per yard. I cut it two and one-half fingers on selvage and tear it across the width of cotton, put the edges close together, turn over a little to make it strong and stitch on the machine. After cutting in the middle, I tie one end and stuff as tightly as possible, leaving just enough cotton to tie at that end. I have a strong ring of copper wire the size of bag and pin bag over it while stuffing. This keeps the bag open and is a great help. After the rolls are all full, I melt lard and rub the rolls when cold and hard, which excludes air and helps to keep them.

I have orders for more than I can make at twenty cents per pound. I do not go by judgment in seasoning, because some years one's judgment might not be the same, while by measurement and weighing the meat is always uniform.

After finishing the sausages, I took all the bones and feet and made head-cheese which I sold to a grocer at sixteen cents per pound. This year I expect to get eighteen cents per pound. The lard I sold for eighteen cents per pound. We cleared twenty dollars on the hog and it was not a week's steady work. The men ground the meat in the evenings, so it did not interfere with their work. This year we will have enough pork for ourselves, even though my orders are larger.

MRS. J. M. B.

Flushing the Ewes

FLUSHING the ewes means simply *fleshing* them up into better condition; that is, feeding them on some very fattening food which will also improve their whole system.

As a practical system, nothing is more necessary in the fall before the breeding season, because the ewes will all breed better if given a good flushing. It seems nature's plan to wait until animals are fattening up (thereby laying up energy to nurture their young) before she permits mating. Excessive fat is hardly reserve energy, but rather a detriment, so she prevents animals which are too fat from breeding, also. Especially is this noticeable in the animals which breed in the fall. At this time nature's grasses and food-supply generally are abundant, and if they are, there will follow the next spring a plenteous crop of strong youngsters. If feed is scarce, on the other hand, and the old ones are weakened and thin, an unsatisfactory crop of thin offspring results.

Farmers should then profit by this and give their ewes a better change onto old meadows and second cuttings of the clover-fields. Turn them onto the stubble-fields as soon as the clover gets a start and allow them to lightly graze it. Give them a chance in the corn-fields until they begin to nibble too many of the ears. In general, treat them as well as you can. If food in the open is scarce, give them some light corn feeds regularly, and get them to thriving before they are turned with the ram. If you don't fatten them up now, you will need to do so when winter is on. J. C. COURTER.

Comparative Cost of Feeding Cattle and Sheep

MANY careful experiments have been made to ascertain the comparative cost of feeding cattle and sheep. In a series of these, carried out under Professor Curtiss at the Iowa Experiment Station, a car-load of choice Herefords coming two years old were fattened at the same time as seventy-nine lambs and yearlings, of the English mutton breeds, and thirty Merino, cross-bred, and range lambs. Both cattle and lambs were pushed forward as rapidly as was consistent with health, and both lots were finished and marketed at the same time. The cattle were found to have consumed 8.9 pounds of dry matter for each pound of increase in live weight, while the sheep of all breeds consumed 7.37 pounds, and the special mutton breeds, 7.25.

In England recent experiments gave eleven pounds for cattle and nine for sheep, and in all the experiments I have come across the sheep have maintained about this rate of advantage.

It must be remembered, too, that, if properly made use of, sheep for fully a fourth part of the year cost almost nothing to keep, for their value as weed-destroyers and as fertilizers fully pays the bill, while cattle consume more or less costly food all the time.

In the above experiments the cost of the feed of the cattle was not published, but most elaborate tables as to the sheep show the nature and cost of their feed—and they had the best of everything—a little less than three cents for each pound of gain made. There is not space here to go fully into details, but one important feature I must

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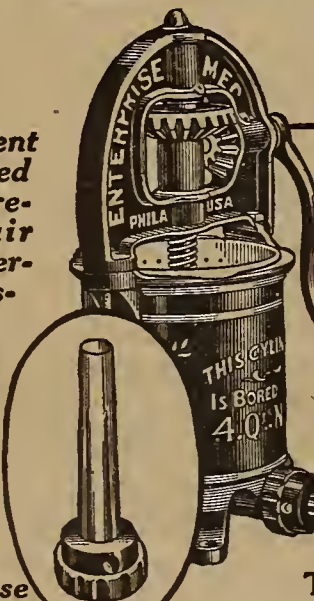
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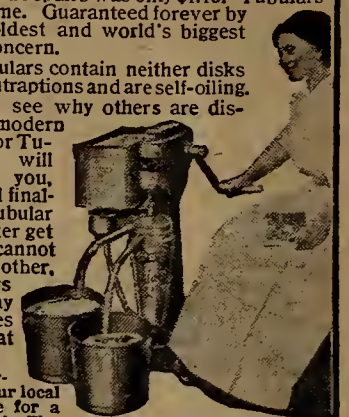
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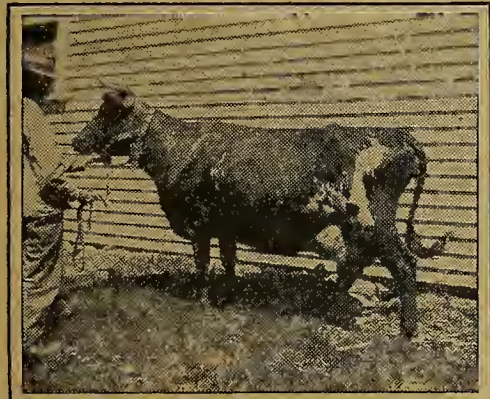
notice: two classes of what are called lambs—real lambs of about 270 days old and yearlings of about 370 days—were included in the experiments; the lambs were finished and ready for market at fifty-six per cent. less cost than the yearlings, and they sold for ten per cent. more; and here is a fine illustration of the fact that the greatest—and, for the feeder, the most paying—growth is made in the first few months of any domestic animal's existence, always providing he is amply fed and properly protected. The value of the fleeces of these lambs was 98 cents, and of the yearlings \$1.34. The cattle had no fleeces, and the butcher—not the farmer—got the hides. JNO. PICKERING ROSS.

Grain-Feeding Brings Results

THAT grain fed to a cow before calving is worth double what it is fed to her after she "comes in" is claimed by N. E. Newman, manager of one of the big dairy herds near Bangor, Maine. His story in regard to the matter is as follows. He says:

"I have come to the conclusion that the generally accepted theory that a cow can be fed heavily and 'milked out' in two or three years is all nonsense. A cow, properly fed, keeps on developing and increasing her productive capacity until long past the age that most dairymen set as the profitable limit. My system is heavy feeding of grain while the cow is dry prior to calving. I feed heifers eight pounds of grain daily for three or four months prior to calving. I feed the mature cow her grain ration with no marked change throughout the year. This gets the cows fat. I have not lost a cow in the last six years."

Mr. Newman plans to have his cows go dry about three months. He claims that by this he can get a better calf, a bigger average in production of milk and save labor in



What can she do in the future?

milking for several weeks. He does not go in for a cow's record as a producer. What she has done usually bears little relation to what she can do for the future. In the case of one cow he has, that formerly gave 14 quarts per day when fresh up to six years old, in two periods under his plans she nearly doubled that amount. Another cow that gave 14 quarts daily with her first calf has steadily risen to 18, 22, 25 and 28 quarts. His whole herd shows records equally as good. He has 44 cows. During the month of June, Mr. Newman was feeding his herd 200 pounds of dried beet-pulp, 100 pounds of cotton-seed meal, 100 of gluten and 100 of corn-meal in an even mixture. One pound of this mixture is fed for each three pounds of milk given, and each cow has a bushel of silage and all the dry hay she will eat in addition, excepting in the best of the pasture season. JOHN E. TAYLOR.

Lambs in the Corn-Fields

OF LATE years it has been a rather common practice in the West to run the lambs in the corn-fields that are to be husked. The lambs make rapid growth on forage that ordinarily goes to waste, and they clean the fields of all weeds mostly before they go to seed.

Raising lambs as we do in eastern South Dakota, under partial range conditions, they know nothing of ear-corn, and we turn them into the corn-fields, where they eat the grass and weeds that have made some growth since the corn was laid by. They eat the lower blades of corn, but do not touch the ears. We have followed this practice on our farm until we have no weeds in our corn-fields. So at the last cultivation of the corn—usually the first week in July—we sow three to four pounds of rape-seed to the acre just ahead of the last cultivation. It soon sprouts and makes a good growth, and such luxurious pasture it does make by the time the lambs are turned in on it!

As this practice may be new to many of the readers, they may wish to know when to turn the lambs in on the corn and rape. Each season determines that for itself. Turn the lambs in as soon as the silks on the ears of corn have dried up. The lambs are quite fond of the silk and eat all in their reach. If they are turned in before the silks are dried, some silks will be destroyed, and every green silk they eat means an undeveloped ear of corn. After the silk has dried, its mission has been fulfilled and it does not harm the ear to have the dried silk eaten.

The lambs may run in the rape and corn-fields for weeks, or till husking-time, and make good growth. Then, if the lambs are

to be taught to eat the ear-corn in the field, turn in a few old ewes. They know what ear-corn is and where to get it, and go right after it. It will be only a few days till the lambs, too, will have learned that corn is good and will know how to shell it for themselves.

To those who have never tried this way of pasturing a corn crop, it will be a surprise to learn how absolutely clean a band of sheep will make a field. They leave no corn whatever if the band of sheep is in proportion to the size of the field, and the husking costs nothing. The advantages of this practice are many. First of all, it is the greatest labor-saver in the way of harvesting a crop that I know of. The only work of harvesting the corn is to drag down the stalks the last two or three days the sheep are in the field, in order that they may get the few remaining ears that are above their reach. The sheep clean the field of all weeds for the crop to follow. The stalks of corn are eaten clean of all leaves and are no hindrance to the working of the ground for the future crop. The ground is manured evenly and well by the sheep while they are doing the husking. The sheep and lambs are marketed early, and the cost for the crop is in the bank, while many still have corn in the field, that has still to be husked, shelled and hauled to market.

We have gone through it all and know what it is. For years we hired huskers at from three to four cents a bushel and boarded them (four to six of them) for a month or six weeks, and we were working early and late, both in the house and outside, to get the corn crop out. Then we worked a good part of the winter shelling the corn and hauling it to market and selling it. But now all is changed. All the corn that is not cut to fill the silos or to be shredded is husked by sheep. The sheep and lambs are fattened to a finish and on the market about Thanksgiving-time.

We cannot raise nearly enough lambs each year to do our husking, for we have not pasture enough to carry the ewes, so we buy two or three double-deck car-loads of range yearling wethers each year to help our lambs do the husking. We buy the yearlings at Omaha in July or August and run them on the pastures and in the grain-stubble, which is always sowed to rape, too, till the corn-fields are ready for them. We like the yearlings, for they are sturdy range fellows and will withstand whatever inclement weather we have in the fall. We do not shed them, nor feed a single peck of grain in troughs, but ship direct from the fields to Chicago. PAUL H. BROWN.

Carrots for Milch Cows

AN OREGON reader asks advice as to the feeding value of carrots and sugar-beets for milch cows.

The best dairy countries of Europe use root crops very extensively for cows. In Denmark a quarter of the farm is planted to them. Here, silage largely takes the place of roots as succulent feeds, and is considered better. Sugar-beets and carrots are lower in food value as compared with corn-silage and grain concentrates; but they are good for the cows when mixed with dry feeds to furnish succulence. B. F. W. T.



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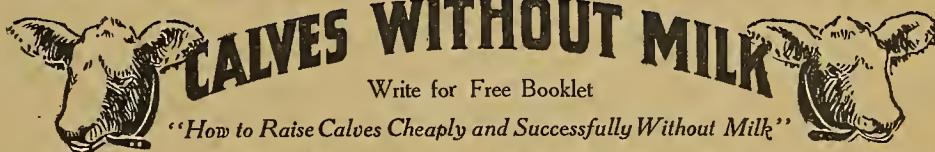
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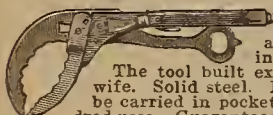
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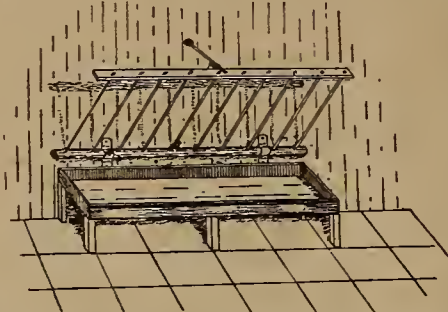
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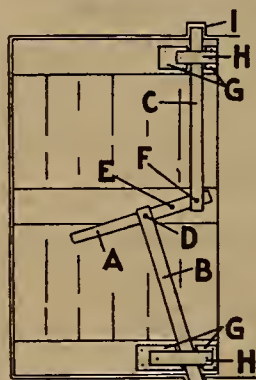
THE floor is made of concrete, the rack is held in place by two pieces of hoop iron at the bottom and secured at the top by a rope running through a hole in the wall, and to the end of the rope is fastened a weight, that pulls the rack up against the hay, holding it closely against the side of



the barn, thus preventing the hay being pulled out in too large bunches by the horses or cattle. The trough below the rack catches all chaff and leaves that would otherwise fall to the floor and which would be tramped underfoot with the manure and be lost as food, but would make good manure. There is no excuse for wet and sloppy stalls with this outfit. Use plenty of clean straw for bedding, it will keep the stock nice and clean, and help to swell the pile of manure.

J. W. GRIFFIN.

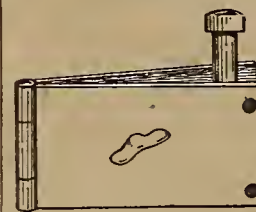
Catch for Swing Doors



A GOOD catch for swing doors can be made as follows: Select three oak boards, or any hardwood boards, two inches wide by one inch thick. Saw from one of these a piece three feet long (A), and in this, two inches from the end, bore a three-eighths-inch hole (F). Four inches from F bore a hole (E), then another hole (D) four inches from E. This piece should be bolted on the inside of door at E, eight inches from the edge. Saw the other pieces so they are three inches longer than half the length of the door. In each of these bore a three-eighths-inch hole (D-F), two inches from the end. Bolt B and C to A at D and E. Nail blocks at top and bottom of door (G) three inches apart. Across these nail a strip (H). Let C and B slip through these blocks. In the sill at top and bottom of door cut notches (I) so B and C will slip in nicely. To fasten door, pull down on lever (A), and to unfasten, lift up. This latch holds the door firmly at the top and bottom, and does away with the center prop that double doors usually have.

R. F. PRENTICE.

Handy Hand Vise



not be explained, as the drawing shows how it is constructed.

THOMAS HOFMEISTER.

A Good Fire-Clay

TAKE a wash-pan or other receptacle, fill partly with clay, yellow clay being the best. Add to this a cup or two of salt, and water enough to mix to a thick mortar. Wet the surface with a wet cloth before putting on the clay. We use it for lining stoves and backwalls and grates. A fire can be built immediately after applying. This works fine for us, some having been known to stay on a year.

HARRY BERESFORD.

Strong Stone-Barrow



THE sketch shows a contrivance found useful for handling stone or moving other heavy or bulky material to which the ordinary wheelbarrow is not adapted. Use two pieces of two-by-three-inch hard wood three and one-half to four feet long for the main parts of framework. At one end hang a solid old barrow-wheel, with bearings of strap-iron so as to have two or three inches of wheel below the frame pieces. At the other end bolt handles obtained from an old farm cultivator or shovel-plow; the handles are bent out to required position and held in place by a simple iron brace which strengthens both frame and handles. The handles should not be elevated too much at ends, but be low and long enough to give sufficient leverage in lifting barrow. Put on a floor of hard-wood

boards about one and one-half inches thick, making it, say, two feet wide and twenty-five to twenty-seven inches long, and at the front arrange a sloping board behind the wheel. This board is held by nails or screws to a block attached outside of each two-by-three-inch frame piece; in the cut it is partially represented by dotted line and but one of the blocks that hold it is shown. The two-by-three's may be placed as far apart as length of hub and axle of the wheel will allow. Screws or nails may be used to fasten the flooring, and the durability of the bed will be increased if two or three flat iron strips, drilled with holes for the screws or nails, are used as washers, running the full length of bed and up on the front board.

J. G. ALLSHOUSE.

A Sled with Wheels

THE accompanying sketches illustrate a handy device that can be used on the farm or in a truck-patch or even in town. It is very convenient, since it is made especially for one horse. It is much more satisfactory than a sled for hauling stones or manure, and it takes up much less room. The sketches are almost self-explanatory. The wheels and the runner should be equipped with tires. The runner should not be drawn so tight but what it can turn from right to left.

A represents the runner; B, the wheel; C permits the runner to move easily from left to right; D is the bottom of the sled; E and F represent the parts of the frame; G is the axle made from an old buggy axle, and H is an iron rod which is so arranged that it can be drawn tightly or made loose.

When the horse pulls, the device runs practically on two wheels. If in going down hill it begins to go too fast for the horse, the runner comes down on the ground and acts as a brake. In backing up, the wheels are far enough forward to prevent interference with any objects.

DANIEL MICKLERY.

Useful Rivets

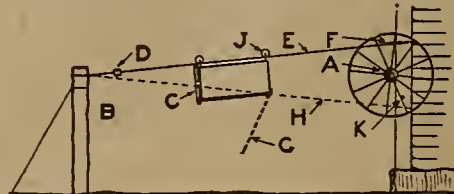


EVERY farmer has a lot of old horse-nails in the old horseshoes. Take a piece of a broken tooth from a spring-tooth harrow, heat it and punch a hole through it just large enough to admit the horse-nail. When this becomes cold, you can insert a nail and beat it down to a very nice head, and do it cold, too. If you want a nice rounded head on the rivet, the head of the nail can be rounded up a little before it is hammered down. Take scraps of the modern steel roofing, cut them in small squares, and with the handle end of an old file you can punch a hole that just suits the nail rivet. In this way you can always have rivets of almost any length. These rivets are far stronger and more serviceable than copper ones.

IRA LONG.

Dandy Litter-Carrier

HERE is an inexpensive home-made litter-carrier. Take an old corn-planter wheel and fasten to the studding by means of a hard-wood axle, "shaped like a bracket on telephone-pole." Bolt to the studding as at A. Next set a post in the barn-yard with the top on a level with the axle of the wheel. Post B depends on the size of wheel and what distance from the barn it is set. E can be number nine wire, but it is better if one-fourth-inch cable is used. F is a short spring to keep wire from breaking. Dotted



line H shows position of wire on return of carrier. The carrier is easily made out of a box. Two barn pulleys are attached by means of a piece of strap-iron as in J. Next hinge the bottom on the back end and put a stick on the other end of the box, with a notch in it, to hold the bottom up. Fasten in the middle with a block and a bolt through both (C), so the stick may move easily. Next put two blocks, bolted together, on the wire at the place you want the litter dumped, and when stick C hits block D, the bottom drops out as shown by G. Then turn your wheel down and the carrier returns. A hole in the studding (K) for a bolt will hold wheel while carrier runs out.

J. L. GILLESPIE.

Fence-Posts Last

WHEN setting the fence-posts, fill the hole with coal-ashes well above the ground. No person will live to see the posts rot off.

CHARLES BICKERTON.

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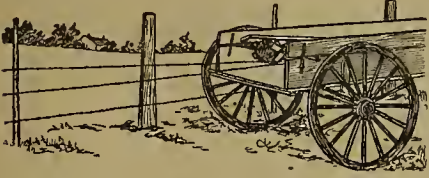
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Handles Barbed Wire Easily

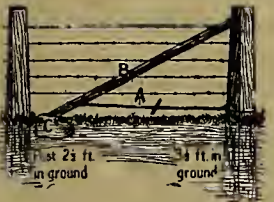
As I do most of my work alone, I had quite a bit of trouble in stringing barbed wire until I hit upon this plan. I took a heavy iron rod about an inch in diameter and ran it across under the top box of my wagon and in front of the back slats on the box, so when the reel was on and pulling it couldn't slip back. I then put my reel of wire on the rod, so that the wire would run off from the under side, and then placed a two-by-six



on top of the reel with one end against the front end of the wagon-box. As the reel turns toward the front of the wagon, the plank will stay in place and keep the wire from unwinding too fast.

Now all you have to do is to fasten your wire to the post and drive off, and you will find your wire will be laid down perfectly smooth and tight. NORMAN A. WOODRUFF.

A Firm Post



THIS is an excellent way to brace a post. It does not need much explanation. It is easy to see that the tighter you twist the wire (A), the firmer the post will be held. The end of

brace (B) rests on a large stone (C). The stone is placed either on top of the ground or down so as to be level with top of ground. I prefer the latter. VAL HUNTER.

This May Save a Life

It is often desirable to make repairs on a roof where supports cannot be easily attached. A common ladder may be used for this purpose by boring holes through the side pieces near one end and driving into these bolts or spikes that will project three or four inches. These being at right angles to the ladder will hook over the comb of the house and make it perfectly safe to work on while doing any repair work. To make it still more rigid, the spikes or bolts may be heated by a blacksmith and sharpened, being turned slightly back so they will enter the shingles and thus made doubly safe. H. F. GRINSTEAD.



Good Gate

TAKE one piece of two-by-six, long enough to reach across gate space and three feet to extend beyond post to support weight, which is made of concrete, or a box of iron or rocks. Spike a short piece of two-by-six on each side of main beam, commencing at picket nearest post and extending past post to end of beam; this is to reinforce beam and give thickness to beam at bolt so that gate will not have side play.

Each picket is bolted loosely with one bolt. A piece of one-by-four serves for bar at bottom of pickets to steady them. These are also bolted with one bolt.

Set two posts six inches apart. Hang main beam between posts with heavy bolt or piece of pipe. Use just enough weight so that gate will rest solid in notch at outer end of gate. Then as soon as gate is raised the weight becomes the heaviest and gate goes up, and stays until pulled down by means of a rope or chain.

Fig. 1 shows gate closed; Fig. 2, open, and Fig. 3 shows blocks with notches nailed on post for gate to rest in.

The advantage of this gate is that you can drive up to it, while with a gate that swings one is obliged to stop back far enough to let gate swing.

A child four years old can open a fourteen-foot gate of this style, and it is not likely to be drifted shut by snow. It costs about the same as a gate on hinges. FAY DAVIS.

Roots Rot

COTTONWOOD trees, about two or three inches in diameter, may be easily killed. In spring or fall we bore about five holes in the tree, put in each hole a piece of saltpeter about as big as a walnut, put in some water in order to melt the saltpeter and close the hole up with a cork. After two years the roots of the trees are so soft that you can plow them out. CARL HORN.

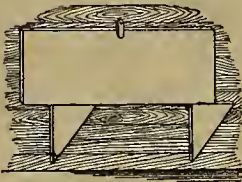
Concrete Water-Pipe

A FRIEND of mine made a whole water or pipe line of concrete mixed at the rate of two parts sand and one part cement. His object was to carry the water of a spring to the house. He dug his ditch within six inches of the spring and started there. He scooped out the bottom of the ditch six

inches deep and six inches wide and filled ten feet of it two inches deep with concrete.

Then he laid in a perfectly straight one-and-one-fourth-inch round gas-pipe twelve feet long. He added more concrete till it was about two inches thick all around the pipe. After it was nearly set he turned the pipe with a pipe-wrench and pulled it out to within a foot of where the concrete ended and proceeded as before till he had the whole of the line finished. At the end near the house he left the pipe in and put on an elbow and turned the pipe up high enough that, by adding another elbow, the water flowed into a trough. I will add here that he boxed the spring with two-inch plank and let a short piece of pipe in through an auger hole one foot above the bottom of the spring and covered the end of the pipe with gauze netting to keep out the dirt. The silt in the spring was never allowed to get up to the pipe entering the spring. J. E. ELLIOTT.

A Handy Table



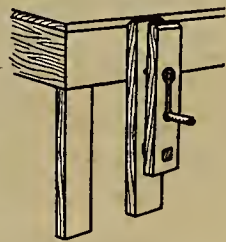
THE illustration shows a wide board hinged to the wall onto two triangular bits of boards hinged beneath it. A button holds the board against the wall when not in use.

Pull out the two triangular pieces and let down the wide board, and you have a handy table that will take up very little room. It is a great convenience, and when not in use is entirely out of the way. MRS. HARRY BROWN.

A Vise That Grips

THIS vise is made of two-by-four studding, one three feet long and one two and one-half feet long. Make both even at the top and put a mortise one-half inch by two inches at lower end of short one and running through both of them. Put a tongue eight inches long in the mortise in the bottom of the short piece, so it will work loose in the mortise of the long one.

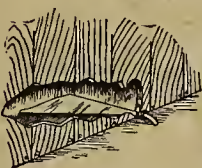
For the vise part I use a three-quarter-inch bolt six inches long. A grindstone or fanning-mill crank, or a wrench, may be used to tighten the vise. ABRAM PHILLIPS.



To Mend Old Furniture

THE drawers of an old bureau I purchased were badly wrecked and some of them nearly falling to pieces. I began fitting suitable length pieces of "quarter-round" stuff in the inside corners of the drawers and nailing them in place with long, slim nails, dove-tail fashion from both inside and out. The "quarter-rounds" left a nice, smooth finish in the interior of the drawers, they are very quickly put into place and render the drawers, when nailed, as rigid as new. PAUL R. STRAIN.

Rat Slaughter-House

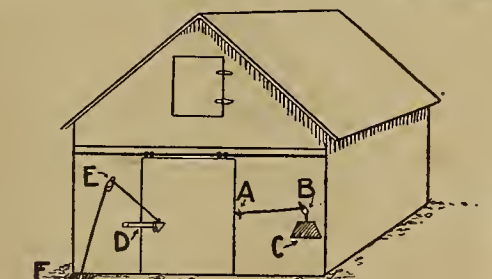


AFTER using rat biscuits and poisons, in trying to get rid of rats, I devised the following plan:

I took an old hollow-ground razor-blade and shaped it as shown in the sketch, making it very sharp, and placed it in the rat-hole. This transformed the rat-hole into a slaughter-house. The trap is always set and is very cheap and simple. This has been worth a great deal to me. SMITH PERSHING.

Opens the Door

HERE is a very convenient sliding door for a stable which is easily made. First, secure a piece of rope and fasten it to one end of the door, in the middle, so it will pull straight (A). Next run it through the pulley (B) and fasten a weight to the end of the rope (C). Second, secure a



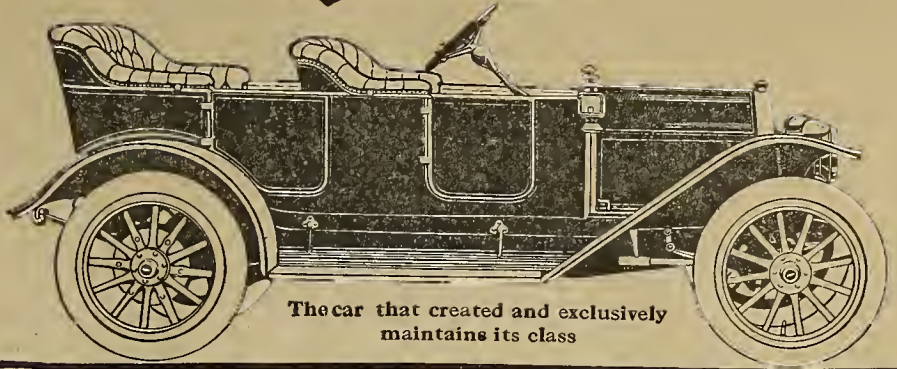
catch made out of any wood or iron so as to hold the door when not in use. D gives an idea how to make it. After the catch is made, fasten a rope to it and run it through the pulley (E). Next, dig a small hole in road, stretch the rope over this and fasten the rope to the peg. F shows hole and G shows peg on which the rope is fastened. When a vehicle of any kind passes over this rope, it pulls the catch from its place, allowing the weight to pull open the door. WALTER H. KETTERER.

Winners—August 25, 1911

The Headwork ideas receiving the highest number of votes in the August 25th number were:

For the Puller A. M. Besemer
Eggs are Safe J. F. Baker
Rhubarb Kink D. S. Burch

Marion



The car that created and exclusively maintains its class

The R.F.D. and the Automobile

These Two Great Factors Have Been Uppermost In Giving To The Farmer City Life, Enterprise And Comfort

THE benefit, comfort and pleasure derived from the possession of an automobile are measured only by the kind of automobile you own. In the Marion you get all car—you are not paying part of your good money for a fancy name nor an "advertised reputation"—the Marion sells on merit. You don't have to be an engineer in order to operate a Marion car, because simplicity of construction is its chief characteristic—self-reliance was born in a Marion. This car can be operated and turned in crowded city streets or narrow country roads—it can be started by your wife or daughter as easily as she turns a cream separator crank.

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MARION "35"—Five-passenger, flush-sided, fore-door Touring Car; wheel base 112"; fully equipped, less top and windshield. \$1285
MARION "33"—Two-passenger, Torpedo or Open Roadster; wheel base 111"; full equipment, including large brass-bound tool box, and gasoline tank in rear; price (less top and windshield). \$1150
MARION "43"—Five-passenger, flush-sided fore-door Torpedo Touring Car; wheel base 120"; fully equipped, less top and windshield. \$1750
MARION "46," Two-passenger, and MARION "47," four-passenger, same specifications as MARION "48." Price, each. \$1750

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The Marion Sales Company, Indianapolis, Ind.

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Don't you want to join this great army of health-savers and money-savers? Don't you want to do your work without your feet bothering you? Don't you want to save about \$10 on your shoe money every year? Then wear Steel Shoes, like the half million that are now doing it.

No More Wet or Cold Feet Prevents Colds, Rheumatism, Pneumonia—And No More Corns, Bunions, or Callouses

There is nothing in the world like my Steel Shoes. Nothing can even compare with them. The soles are stamped out of a thin, rust-resisting, seamless, special process steel. This steel extends from heel to toe and up around the edges. There are no cracks or seams. The soles are studded with adjustable steel rivets which protect them from wear and give a sure, firm footing. When rivets wear out they can easily be replaced by yourself. Fifty rivets cost 30 cents and they will keep your shoes in good repair for two more years.

Let me prove all these wonderful advantages to you. You ought to have enough consideration for your own health and comfort to write me a postal for the facts right now. Read how the construction of my Steel Shoes makes them absolutely the greatest boon to the outdoor worker ever invented.

My Free Book Proves It

Read why the heels and soles on Steel Shoes can't wear down at one side or run over, can't give you an uneven standing surface, can't throw the weight to one side on your ankles. That's one reason why steel shoes can't cause crippled, sore, aching feet, tired ankles. Do you know the real reason why you get so tired standing on your feet all day tramping around? It is a hundred to one that you have broken down the instep of your leather shoes, making you stand flat footed. There's where the fatigue comes in. Thousands of people have their shoes made to order, putting in steel shanks to prevent this. Every pair of Steel Shoes that I make prevents it. And here's the economy feature. Let me prove to you that Steel Shoes Outwear 3 to 6 Pairs of All-Leather Shoes

The light, thin, rust-resisting Steel Shoes are practically indestructible. They can't ever shrink, crack, curl up or bend out of shape—they can't spring a leak or get your feet wet from the outside or inside.

They are fastened everlastingly to the light, strong, pliable water-proof uppers by an absolutely water-tight connection. And these steel soles are studded with adjustable steel rivets—which, when they wear down, can be replaced by you. 50 rivets cost only 30c and make Steel Shoes good for two years more. Isn't that economy? Is it any wonder that Steel Shoes outwear 3 to 6 pairs of leather shoes—that they are more comfortable and better protection than any other work shoe boot ever made? Don't you want the proof of all these statements?

Write Me a Postal NOW

Steel Shoes are made in different heights and sizes from 6 to 16 inches—sizes from 1 to 12, for men and boys. I'll send the shoes you want, on free examination—you to decide, after a try-on in your own home, whether or not they justify everything I have said about them and more. Your money right back if you want it—no questions, no quibbling. Mail me a postal for my free book. Take this step NOW to insure your comfort and health and shoe economy. Address

N. M. RUTHSTEIN,
The Steel Shoe Man
264 Seventh St., Racine, Wis.
Canadian Ed.: Great Britain Ed.:
Toronto, Can. Northampton, Eng.



Home-made Gas-Light From Crushed Stone

TWENTY years ago the oil lamp had already been driven out of the city into the country home where gas could not follow—so we thought.

In those days we would have laughed at the idea of a country home lighted with gaslight.

But like the telephone and free mail delivery gaslight has finally left the city to become a common rural convenience.

In the year 1911, the up-to-date villager or farmer not only lives in a gas-lighted house, same as his city cousin, but when he drives home on a cold, wet night he actually lights up his barn, his barnyard or porch on his house with this gas-light by simply turning an "ignition" button on a post or wall.

And this change seems quite like magic when you consider that this rural gaslight is home-made—made by the family itself right on the premises.

Take fifteen minutes once a month to make all that can be used in a large house.

The magic is all in the curious manufactured stone known commercially as "Union Carbide."

This wonderful gas producing substance, "Union Carbide," looks and feels just like crushed granite. For country home use it is packed and shipped from warehouses located all over the United States in sheet steel cans containing 100 pounds.

Union Carbide won't burn, can't explode, and will keep in the original package for years in any climate. For this reason it is safer to handle and store about the premises than coal.

All that is necessary to make "Union Carbide" give up its gas is to mix it with plain water—the gas, which is then instantly generated, is genuine Acetylene.

When piped to handsome brass chandeliers and fixtures Acetylene burns with an intensely brilliant, stiff flame, that the wind can't affect.

This flame makes light so white in color that it is commonly called "Artificial Sunlight."

Experiments conducted by Cornell

University have proven that it will grow plants the same as sunlight itself.

Physicians recommend Acetylene as a germicide and a remedy for eyestrain, and it is used as an illuminant in fifty-four hospitals in New York City alone.

Then, too, Acetylene is so pure that you might blow out the light and sleep all night in a room with the burner open without any injurious effects whatever.

On account of its being burned in permanent brass fixtures attached to walls and ceilings, Acetylene is much safer than smoky, smelly oil lamps, which can easily be tipped over.

For this reason the Engineers of the National Board of Insurance Underwriters called Acetylene safer than any illuminant it commonly displaces.

In addition to all these advantages, Acetylene light is inexpensive.

An Acetylene light of 24-candle power costs only about 4 cents for ten hours' lighting, while for the same number of hours regular oil lamps of equal volume cost about 6 cents in kerosene, chimneys and wicks on the average.

Consider this carefully and you will hardly wonder at the fact that there are today no less than 185,000 town and country homes lighted with home-made Acetylene, made from "Union Carbide."

Once a month some member of the family must dump a few pounds of Union Carbide in a small tank-like machine, which usually sets in one corner of the basement.

This little tank-like machine is automatic—it does all the work—it makes no gas until the burners are lighted and stops making gas when the burners are shut off.

The lights located in every room in your house, on your porches, in your horse and cow barns, or barnyards and chicken yards if you like, will all be ready to turn on with a twist of the wrist or a touch of the button at any time of the day or night.

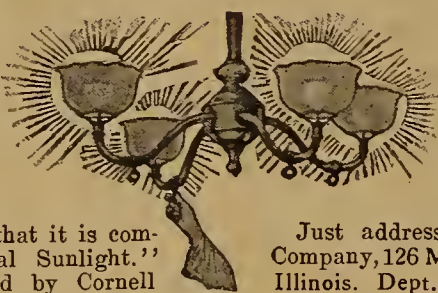
No city home can be as brilliantly or as beautifully illuminated as any one of these 185,000 homes now using Acetylene.

If you want to be up-to-date, enjoy modern conveniences, and keep the young folks at home, write us how many rooms and buildings you have. We will send you free an intensely interesting lot of facts, figures and booklets.

Just address Union Carbide Sales Company, 126 Michigan Blvd., Chicago, Illinois. Dept. A-28.



CRUSHED STONE



Farm Notes

Pulling the Stumps

AFTER stumps have been split by powder, they may be pulled with horse-power. The cost of this equipment will be from \$20, for three steel pulley-blocks and one hundred feet of one-half-inch plow-steel cable, to \$40, for stronger pulley-blocks and longer and heavier lines. The accompanying illustrations show how the power may be obtained by the use of this method.

In Fig. 1, the pull being placed at a will produce double the amount of force applied at point L. In other words, two horses pulling at a is theoretically equivalent to four horses pulling at point L. The pull placed at point b will produce the equivalent of eight horses at point L. Again, the pull being placed at point c will produce the equivalent of sixteen horses at point L.

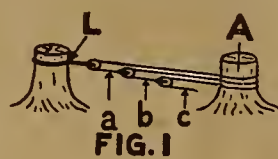


FIG. 1

In making fast to a stump that is to be pulled, the chain should be as near the top as possible. The anchor, as shown in Fig. 1 (A), should have the fastenings as near the ground as possible.

It is not necessary to use the entire setting of the lines, as here described, for all pulls. The blocks may be added or taken off as the load increases or decreases.

Very small stumps may be pulled by horses directly attached to them by making a hitch about the stump with a chain as shown in Fig. 2.

One soon learns the amount of powder to apply to each pull and will be surprised at the rapidity of this method. E. V. VORIS.



FIG. 2

The King Road-Drum Improved



TAKE an eight-foot eight-by-nine cross-tie. Rip it to four by nine inches. Take off one edge two inches on the face and three inches up the side. Mortise as for sled frame two inches from square edge; four mortises for eight-foot drag, three mortises for six-foot drag. Take a tough two-by-four and cut four cross-pieces thirty inches long, fit the ends in mortises and wedge or pin them fast. The drag should be square for good work. An old drill-wheel tire straightened will shoe the square side of both parts of the six-foot drag, but a splice will be needed for the eight-foot one. The drag is for three or four horse work on the road or after the plow, or in the field. Two horses will handle a six-foot drag either place, or an eight-foot drag the reverse way in a field. For leveling up the field after the plow or for crushing clods or covering small grains, or for road work after the county scraper, this tool far surpasses a roller for effectiveness. Four strong rings with eye-bolts are fastened to the ends of this drag. You will need no harrow after this tool.

A short chain, with two hooks, constitutes the hitch, and one of them loosened and brought over to opposite side of the drag makes a sled on which the other tools needed for that particular job can be transported from field to field. Rings should be one-half inch thick and three and one-half inches in diameter to make a handhold for carrying or lifting. L. P. ROEMER.

Always be on the alert for new inventions and improved methods which lessen labor or save time.

Many manufacturers have experts who spend their entire time improving their products and experimenting with new methods of doing things.

When these are perfected, you can usually find them advertised in FARM AND FIRESIDE. It is therefore to your interest to look through these columns carefully each issue, as something may be there which is just what you have been wanting.



VELLASTIC
Underwear is just what the name implies—soft like velvet, and elastic.

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Ribbed Fleece-Lined Underwear

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Write for Bodygard Book No. 65.



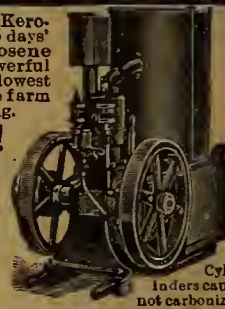
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5-year ironclad guarantee. Sizes 2½ to 20 H.P., at proportionate prices, in stock, ready to ship. Postal brings full particulars free. Write for proposition on first engine in your locality. (116) 88 Canton Av. Detroit Motor Car Supply Co., Detroit, Mich.



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ONE-PLY Weighs 35 lbs., 108 Square Feet, \$1.10 per roll.
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United States Bonded Engine. Burns gas, gasoline, kerosene, distillate. Consider these 12—Advantages—12

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Greatest value ever offered in a 4 cycle water-cooled farm engine. Runs any kind of machinery—pumps—saws—separators—feed grinders—water systems—electric light outfits, etc.

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30 Day Trial Offer Gray Motor Co. 1067 U. S. Motors Building Detroit, Mich.





The FARMERS' LOBBY.

Peace at Any Price

By Judson C. Welliver

HAVING seldom been killed, and never convicted of killing anybody else, I regard myself as a person of peace. Wherefore I was pleased immensely to read in the public prints a few weeks ago that President Taft had concluded negotiation of a brace of arbitration treaties, one with France and the other with England, which positively were guaranteed to put war out of business.

These treaties, we were assured, being once ratified, would make it impossible for us to have a war with England or France. All that would then be necessary, in order to end the whole bloody business, would be to induce all the other nations to make like treaties with each other. This, it was averred, would be comparatively easy, once the lead were taken, the example set, by three such eminent countries.

"For," it was pointed out in one editorial whose author did not seem to intend it for the humorous department, "the united power of these three countries could easily impose peace on the world, if need be, by show of force."

Why Not Fight to Keep Peace?

IN BRIEF, these three countries could compel the world to keep the peace, if they had to fight all the time to do it!

This idea of having peace at any price seemed rather good to me until a fortnight later, when France and Germany got tangled up over Morocco, and were on the verge of war. The price of wheat went up one and seven-eighths cents in one day, and the market reports said the war scare did it. I had been holding my wheat for a better price, and this looked good. Therefore, I set out to ascertain, if possible, whether war, as an institution, was likely to be retired from circulation. If it was, I wanted to find out whether it would happen before my wheat was sold.

Therefore, I hunted up an Eminent Member of the Diplomatic Corps. It was, of course, utterly impossible for him to have any views on the subject, because if he should get suspected of positive opinions on anything he couldn't be an Eminent Diplomat. They'd fire him. Still, on such a question, one must talk to an Eminent Diplomat, else one cannot put over one's bluff about special information and insight.

Approaching the E. D., I asked in a rough-necked, low-browed tone of voice which must have grated sadly on his sensibilities:

"What's all this about the arbitration treaties putting an end to war? Are they going to do it before this year's wheat's sold?"

E. D. looked the pain he felt, and indicated inability to grasp the purport of my inquiry.

"What I want to know," I groped, "is whether, if these treaties with France and England are ratified, there will be an end of all chance of fighting with either of them? Is the good old world threatened with an end to war? Isn't there going to be anything for the historians to write about hereafter? Are the days of potential romance positively ended? Are the Ten Best Sellers to be, perforce, all problem novels and packing-house descriptions, merely because war is to become a back number? Is the race to degenerate into a lot of mollicoddles, without a chance to be drafted into heroism and the vice-presidential class?"

A Few Questions on the Subject

A VAGUE notion of my intent seemed to dawn on him. He looked exceedingly serious, as a diplomat must when he is getting ready to hand one across to you, and said:

"Beyond doubt, President Taft has initiated a movement which will write his name high on the roll of true benefactors of the race."

"Yep, sure," I conceded, "but what I want to know is whether it's to the scrap-heap for the dreadnaughts; whether the soldiers are liable to be looking for jobs at harvest-time next summer; whether the plowshare market is to be subjected to the bear influence of a world-wide movement for the transmogrification of swords; whether the members of the Military Affairs committees are to lose all the army posts and supply-depots in their home districts. Why," I hurried on, seeing that he threatened to interrupt me, "do you realize what a tragedy it would be for Senator Warren of Wyoming if war were to be put on the bum? For years and years, he's been getting appropriations for Fort Laramie and Fort D. A. Russell, in order that Wyoming might be in proper posture of defense against

an invading fleet of French, English or German battle-ships. There wouldn't be any more excuse for keeping up those forts if there were not going to be any more war; and then what reason would the people of Wyoming have for continuing to reelect Senator Warren? What's a senator for, if not to get appropriations for the state?"

He made a nervous gesture of deprecation, but I was going quite some by this time, and declined to be stopped.

"Take dear old Senator Dupont, chairman of the committee on Military Affairs, and uncle to the Powder Trust. How would he be able to keep up any real, live interest in being a senator if there were not going to be any more war, or any market for powder? And so on down the list: who would want to serve on the Naval Affairs committee, if he couldn't have a navy-yard in his district?"

The Eminent Diplomat at last saw my drift.

"You are right," he said, "but also wrong." I thought that was a mighty good bit of diplomacy. "You need not be concerned about these treaties putting the battle-ship fleet on the rocks, or necessitating the cancellation of all the army and navy commissions and leaving the country without any real aristocracy. Not at all. These treaties, my dear boy, will merely make it possible for the diplomats to prolong their conversations about matters of difference between nations; and in prolonged conversation is often to be found the way to peace."

That began to look like peace at any price, with a vengeance; but it was no time for facetious remarks. Em. Dip. went on:

"There is no way to prevent wars among nations. Anybody who claims to have discovered a way is either very innocent, or very guilty. Nations used to fight when their emperors wanted to fight. Wars were mighty frequent in those times, because the emperors liked the amusement. Later, they fought when their kings could induce their cabinets to agree to fight. That made wars rather less frequent, because the cabinets frequently wouldn't agree. Still later, they fought when kings and cabinets could convince their parliaments that they ought to fight."

Why Nations Fight To-day

NOWADAYS, speaking generally and with allowance for some notable exceptions, nations fight when the people of one country decide that they want to fight, and when the people of another country decide that they rather fancy the idea, too. That makes it still more difficult to get the necessary agreement, because the people, who do the paying and the shooting and the being shot at, have never been so enthusiastic about the amusement as the emperors and kings and cabinets used to be.

"Nations fight about three general sets of questions: those which involve the national honor, those which involve vital interests and those which involve substantial advantages. As a rule, questions which cause wars are of the third class; but the nations usually claim that they consider that honor or vital interest are involved."

"A perfect illustration is found in the Russo-Japanese War. Russia was fighting for mere advantage, but claimed that her national honor was at stake. Japan was frankly fighting because her vital interest, her very right to national existence, was at stake. Russia's eagerness for advantage, for more territory and commerce, forced the war."

"If Germany and France should fight over Morocco, Germany's desire for territory and commercial opportunity would have caused it; but France would fight back, not because her vital interest was involved, as was Japan's, but because her honor, prestige, self-respect as a nation, was involved. France would not be vitally affected if she gave Germany all Germany asks in Morocco; but France would lose place and prestige, and therefore cannot yield."

"In the case of our war with Spain, you may decide for yourself what caused the conflict. We claimed it was vital interest: Cuba was at our door, involved in revolution and turmoil which menaced us with pestilence and turbulence. We claimed that we intervened in

Cuba to end that danger. Perhaps so; some people think we intervened because we wanted Cuba. Anyhow, we assured the world that it was a matter of vital interest. Nations never admit the meanest motive."

"So, I am trying to explain, you can't hope to put an end to war. It's a dream. But you can decrease the number of possible causes of war; you can provide opportunity for talking past the danger-point in crises."

"We already have arbitration treaties with France and England. These provide for arbitration of questions which are properly subject to arbitration. To be a proper subject for arbitration, it must be a question susceptible to determination under the principles of law or equity. But what questions are susceptible of determination in that way?"

First, "Let's Talk It Over"

THAT'S a very difficult thing to answer. Before two countries can arbitrate, they must agree to arbitrate. These proposed treaties with France and England, in effect, provide a method by which we can agree whether a difficult question is one for arbitration or not. They provide one new chance of reaching a peaceable adjustment of differences.

"Let me illustrate. As our relations with France or England now stand, in case of disagreement, the first recourse is to diplomacy: to talking it over, trying to agree between ourselves. Most disagreements are settled in this way."

"If this method does not bring agreement, then comes arbitration. This is, in effect, submitting the difference to a court, both parties binding themselves in advance to accept the decision. Here, the proceeding is like a lawsuit; both sides have counsel, prepare their cases, submit testimony, present briefs and make arguments."

"But there are still left certain questions which are not susceptible to decision in accordance with established rules of law and jurisprudence. It is to provide for this difficult class of cases that the treaties now pending have been drawn. They provide that if there is difficulty agreeing to arbitrate, then the two countries shall each establish a Joint High Commission of Inquiry, composed of three citizens of each country, or otherwise constituted as the countries shall agree, by exchange of notes, in a particular case."

"This Joint High Commission shall organize, select secretaries, have power to issue subpoenas, administer oaths, etc., and the expenses shall be equally borne by the two countries. It shall inquire into the whole matter in disagreement, and if five of the six commissioners shall, at the conclusion, agree that the subject is properly one to be subjected to arbitration, then there shall be arbitration."

This delay of a year is perhaps the most important thing about the whole procedure. It provides a means to get postponement, to prevent hasty action under the influence of excitement or temporary passion of the public mind. It is especially to the advantage of the United States, because in effect it would give this country a year's time in which to get ready for trouble, if it were apparent that there were going to be trouble. Notoriously, we are about the worst prepared nation of the first class.

Arbitration's a Good Thing

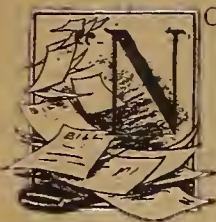
BUT the difficulty about it is that a treaty is not enforceable. It is only an agreement. The moment war is declared all treaties are blown to the four winds. Japan and Russia had plenty of treaties one day. They didn't abrogate them by agreement. Japan sent a fleet into Port Arthur to start war, and the gun that started war ended all treaty arrangements till peace was restored.

So with this arbitration business. It is a good thing because it provides more things to talk about, to waste time over, to give folks a chance to cool off and to think. "When angry, count ten; when very angry, count one hundred," said Jefferson. This plan proposes that we shall always have time enough to count one hundred—provided the other fellow doesn't haul off and smash us while we're counting, or provided we don't wallop him while he's engaged in the praiseworthy mathematical amusement."

It's a good thing to talk about international peace, to get to believing in it, to think over how much war and armies and navies and pensions cost. It all helps make war less popular and less likely to happen. And in this regard the discussion of universal arbitration and world-wide peace is an excellent business.

The Deep

By L. D. Stearns—Drawing by C. F. Neagle



"Now understand, Dolly," and John Matherson's straight upper lip came down with a sudden jerk, "I've never been in the habit of running bills, and I'm not going to begin to-day, and, furthermore, I'm not going to allow you to do it, either."

His young wife held her head very straight. Her cheeks went suddenly crimson. She tilted her chin upward with a graceful little motion he had always admired. "I've not asked permission, kindly remember," she informed him. "When I do, it will be time to either refuse or grant it, I think."

He laughed harshly. "No; you are not given to asking either permission or advice. I've found that out during this year we've been man and wife. I asked you, when I paid your first bill, not to run another, but time and again they've been sent in until at last I'm through asking. It's the man's right to be master in his home, and I'm forbidding now. I intend to be obeyed."

She swept him a mock courtesy, her eyes blazing, the blood flaming in her cheeks until it seemed it would burst through the fine skin. Then she stood upright, one hand beating a nervous tattoo on the back of the chair.

"My lord," the words rang out, clear and full, with a little mocking note of defiance, "you should have bought a slave!"

He whirled angrily in his chair. "I thought," he flung out hotly, "I was taking a reasonable being into my home and my life. I find it was a capricious child instead. From the first it's been one continuous round of bickering—wilfulness—pettishness! I'm tired of it!" The anger died from his face and a sudden weariness came to it. He reached out his hand. "Sit down, Dot, and let's talk things over in a reasonable way. I don't want to be hard or unjust, God knows. I meant to be a good husband to you. We've made a big mistake, but, now that it's done beyond recall, why not agree to live in some kind of comfort?"

She made no move to sit down. He could see her bosom rise and fall tumultuously. "What's the use of talking things over?" she protested. "It merely means the arguing again of your right to say 'thus far and no farther' whenever it chances to please your fancy. Have I been extravagant beyond what you expected me to be? If so, tell me. Have I not a right to my clothes?"

He drew back his hand. "Have I refused you money whenever you asked? Have I complained of extravagance? If you wish a regular, certain allowance, name the amount, and I will endeavor to meet it."

"I don't want an allowance." She laughed a little bitterly. "I never had one. I shouldn't know what to do with one. I'd feel as if I had a great, ungainly elephant on my hands that must be treated just so. It would spoil all the fun to be forever figuring whether you'd spent it all, or still had enough to buy a pint of peanuts. It's much simpler to just get what you want, when you happen to run across it, and charge it up. I've always done it. I always expect to do it, because," a coaxing little pout accompanied the swift, upward glance she sent across to him, "when my husband married me, he took me just exactly as I was, and there's no sense whatever in his being such a cross old bear over every little thing. Moreover, I'm going shopping to-day, and I expect to see oceans of things that I shall just sweep in, and—" with a determined little nod, "I shall have them all charged, every single one."

He sprang up, and stood facing her. "No, you will not." His voice was low and controlled, but the hot Matherson blood was boiling in his veins. "I shall be first, and unless you give me your word that you will do as I say I shall forbid every store in the place trusting you in my name. You say I took you as you were. I did, but it was because I didn't know you, and that your own will and pleasure came before anything else in this world!"

Twice her lips parted as though to speak, but no sound came. Her face was suddenly very white. Wordless, she turned and went from the room.

A moment later John Matherson swung angrily down the street; but after a bit the anger died from his face. He half smiled. He remembered how she would come creeping into his arms when he reached home, with tears and pleadings for forgiveness. Yet, with all the tears and pleadings, she would never consent to give up her own will.

He turned slowly around. Poor little girl, he thought, walking quickly toward home, no one had ever crossed her before; he knew when he married her that she'd ruled home and friends alike from the time she first began to toddle, motherless, about the house; and she was very, very dear. He told himself hotly that he should have been kinder, more patient, for he was beginning to understand how much farther a kiss went than a scolding with the wilful little woman he had chosen for his wife.

He hastened his steps.

"Dot—Dot—" he called, throwing open the door; then, no answer coming, he hurried to the stairs. "Dotty, dear," he sang out, "I want you."

Still there was no answer, and he crossed slowly to his office. Could it be possible she had really gone shopping, as she threatened? An envelope, white, cold, forbidding, lay on his desk. He tore it open and drew out a note.

"Good-by, John." He read the words slowly, his lips going suddenly dry, a queer blur coming before his eyes. "We'll take our lives and go our separate ways. It's the simplest way out, I think. Good luck to you, and your end of it. Dolly."

There was no smallest word asking forgiveness, no

hint of repentance, but down at the bottom of the page, hardly dry, was a big tear-blot.

He read it again, his face growing white and old, then laid it down, reached for it, and read it yet the third time. He looked around the room. Everything was full of her presence, and then, soundless, but with his big shoulders shaking, he dropped lifelessly into his chair and laid his head on his folded arms.

Life went on somehow, he hardly knew how. He ate, drank, went to and from his office mechanically; and in the evening sat looking moodily into the night, dreaming of a cheek pressed against his own, of soft arms about his neck, of clinging lips meeting his. He arose one morning and, glancing into the mirror to adjust his tie, saw staring back at him the face of what looked to be an old man, with drawn, careworn lines about the mouth and hair thickly sprinkled with gray.

He stood for a long time looking fixedly back at it, staring into the gloomy eyes; then with a sudden tightening of the firm lips he turned away. "John Matherson," he said slowly, "you may have been a fool, now be a man."

That night he paid the housekeeper a month in advance, locked up the house and went into bachelor quarters in an apartment block and began life over again.

There was no more staring into the night for him.

When he went to his office the next day, with his old grasp on business once more, and began to gather up the loose ends, he suddenly found himself confronted with what looked like chaos. He called for books and papers, and locked himself into his private office, and there he found himself face to face with ruin. His partner had been away for a week. In his absorption he had hardly noted it. Now, he found not only his partner, but his fortune, was missing.

His lips closed yet tighter, his shoulders seemed to grow a little broader, and when he opened the door and stepped out among the office force, it was as a man who



"Good-by, John." He read the words slowly, his lips going suddenly dry

is master of himself and of the circumstances about him. The lines in his face seemed in some strange way to have been smoothed out. He looked ten years younger. He was himself again, a man of purpose and of grit.

He closed his safe with a bang one night, some five years later, gave a hasty look at his watch and turned to the man sitting opposite.

"I'm off, Wentworth," he said. "I can just make that train; and if Jones is in New York, and I can nail him quick enough, it will go pretty hard if I don't close the deal."

He glanced about his office, his eyes sharp and keen, his whole bearing alert, as of a man who asks no more than a fair chance at life. "It's been a tussle," he added grimly, "but if I get Jones and carry this through, it will bring me within sight of the top once more. I'll give up these quarters and get my old ones back again."

The last words were called over his shoulder as he swung into his coat and hurried out.

As he was hastening along the next afternoon, on his quest for Jones, he happened to glance upward, and at a window opposite, in a crowded dining-room, he saw the profile of a woman, dressed all in gray, with soft, dusky masses of hair piled high on a small, erect little head. He could not see her face, but as he paused he saw her turn with that quick little uplift of the chin he had always likened to the eager, graceful motion of a bird. It was enough. Business, and Jones, could wait. He turned abruptly and went in.

He paused at her table.

"Dolly," he said.

She raised her eyes and the delicately arched brows lifted a bit, as with surprise.

"You?" she responded, and held out her hand.

He took it in one of his; then unconsciously the other was reached out and laid over it possessingly. His stern, strong face grew all at once gravely tender, and something almost like a mist came to the fine, gray eyes.

"I've hunted for you for five years," he spoke slowly, "just for the chance to say 'forgive me.' Will you?"

She drew her hand away with a little frown. "Give me my hand, John," she reproved, a deeper red staining her cheeks. "We're in a public dining-room, remember."

"But you're my wife."

She laughed banteringly. "Even so, this corner of the earth doesn't know it, and besides," she looked up gravely, through long, curling lashes, "that part of our lives is like last year's cast-off garment, folded and put one side."

"But last year's garment can be brought out and refreshed. We always use them a second time. At least, most of us do. Sometimes I really like them better than when new."

"Do you?" she asked, surprisedly. "I should think it would be horrid. I never do. One season is enough for me. I hate things that must be furbished up and fussed with and always handled just so, for fear a spot or a worn place might suddenly come into view."

He sat down. "Let's be friendly?" he pleaded. "I've looked for you everywhere, Dolly— Then, as the waiter paused, "Oh, bring me anything—the best you've got. I can't be bothered ordering. Have you ordered, Dot?" dropping easily to the pet name.

A hot flush came to her cheeks, a queer little pucker to her brow. She nodded.

"Well," as the waiter turned away, "is it to be forgiveness?"

She brushed an imaginary crumb from the table. An introspective look came to her eyes, darkening even their dark depths. "Call it whatever you like; only, is it worth such a pretentious name? In order to forgive one must have suffered greatly, I think, and to tell the truth," breaking off a bit of bread and tasting it deliberately, "I've not allowed our little tiffs to assume enough importance to be greatly unhappy over them."

She shot a direct glance at him from eyes that were now very bright. "If you remember," she informed him,

"I always had a great penchant for being comfortable. When things make me uncomfortable, I just don't think of them," with a funny little grimace. "It makes one grow old and horrid to worry, therefore I never fret over trifles."

"And you're happy, Dot? Really happy?"

She laughed, a gay, thoughtless little ripple. "Of course," she affirmed. "I've nothing on earth to do except be happy."

He leaned toward her, his clear-cut face dropping into stern lines once more. "Will you never cease to play with life, Dot? Never cease being a child?"

She shook her head. "Never!" emphatically. "I'd rather play on the shore." Something dark and haunting came creeping into her eyes. "The deeps are too deadening!" She gave a little mock shiver, but he thought the smiling lips grew tense for just the shadow of a second.

"What do you mean?" eagerly. "If you're always in the shallows, what do you know about the deeps?"

She busied herself diligently, for the space of a moment, with her chicken, and when she raised her eyes, the little haunting shadow had gone and the red lips were softly curved and smiling.

"Nothing—and much," with a swift, laughing glance. "I can sit on the beach, my friend, and build forts in the sand, while watching the waves come rolling up and in. I can see how, when others become submerged, they get carried out to sea, and so I move my forts back to safety and keep dry, and interested, and happy. Oh, yes," with that little upward tilt once more, "I know a great deal about the deeps—theoretically."

He sighed. "Where have you been all the time, Dot?" he inquired. "I'm only here for the day and had not the least idea of finding you. Dolly," his face softening again, "I don't care how you look at life. I don't care whether

you see it from my standpoint or your own. I want you. I can't go on without you. I've missed you these five years until every day has seemed a year by itself. I had to get out of that house. It was haunted. We'll be happy, dear, if you'll only come back. I'll try to understand things from your standpoint. We're older now. I, at least, have been through the deeps. I lost every cent I possessed, but I'm climbing up again. In a way, I've enjoyed the fight. It gave me something besides you to think about. I can't give you as many luxuries as I could before, but I'll give you love, dear; and the rest will follow, for I'm firm on the up grade again, and I've learned that just to have you near means more than all the rest. Will you come?"

Every line of his face grew tense as he leaned forward eagerly, watching her with hungry eyes.

She turned, and for a moment sat looking from the window, her face half screened by a waving fern. "It's the way they all talk," she said, turning toward him again, with a little smiling gesture. "Men manage to get up so much enthusiasm over what, after all, means so little to them. It's like a child crying for the moon. But once let it get hold of it and it becomes a bugbear. It would cry even harder to be rid of it."

Then, with sudden nonchalance: "I'm living with Aunt Sally now. Poor old lady! She adores me! Isn't it strange?" with a swift, challenging glance. "She allows me to do whatever I please. I run all the bills I like, and haven't a care in the world." She smothered a yawn. "If I stay with her until—the end—" her voice caught just a bit, "she will leave me all her fortune some day."

"And that, I've heard, goes into the millions." His voice was dry, the life seemed to have gone from it.

"Five," tersely. Something grim had suddenly struck the softness from her lips.

"I understand." His voice was hard, his face was hard, his eyes were like glinting steel. "You mean that as an answer to my question?"

[CONCLUDED ON PAGE 26]

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Going Down with the Ship

By George E. Walsh

"TRUE to his profession, the captain stood by and went down with his ship." This newspaper remark thrilled readers all over the country several years ago when there was a great disaster at sea, but somebody raised the question later as to whether the captain had not really wasted a life needlessly. The crew and passengers were all off the ship, and by staying to go down with the boat the captain could do no good. Then why should he have sacrificed his life? If he had saved himself, he would not have been mourned by a family who loved him and who were dependent upon him for their living.

"The man was influenced by a wrong idea of the ethics of the profession," the captain of one of our big ocean liners explained. "There grew up years ago a sentiment that a captain who had lost his ship should not survive to meet the disgrace that would inevitably follow. Many a good man has sacrificed his life as a result of this false sentiment. The origin of the custom was the idea that a captain should be the last to leave his ship. Everybody should be saved before he left. I believe the first captain who went down needlessly with his ship was a coward—a moral coward. He couldn't live to face what he feared would be disgrace. Possibly he was careless, and as a result of his carelessness his ship was wrecked. This, he knew, would come out in the investigation. So he chose to go down with the ship and be called a hero rather than live and pass as a disgraced seaman. You see, it was moral cowardice. Plenty of others who were not cowards have sacrificed their lives since from the mistaken sense of duty that grew up around this old idea.

"Fortunately the feeling is changing, and to-day it is no disgrace for a captain to save himself. When he has taken the passengers and crew off safely, and there is nothing else he can do to save his ship, he is morally bound to make every effort to save himself. If he does not, he is a moral coward—a suicide. 'Stick by your ship to the last, and then save yourself!' That is the revised motto of the sea to-day."

It is always well to distinguish between true bravery and its imitation, even in the matter of shipwrecks. The history of the sea is full of heroic deeds where captains have gone down with their ships for good and sufficient reason. One of the noblest deaths of this kind was that of Captain Craven of the monitor *Tecumseh* at the attack in August, 1864, on Mobile. The monitor had been mortally wounded and was fast sinking. The order to abandon ship had been given, and all the crew were off except the captain and the pilot. They had remained at their post of duty until everyone else was saved. Then they started for the ladder leading to the manhole above. By that time the ship was sinking so fast that it was a question of seconds. Captain Craven stepped aside, and with a smile on his lips said: "After you, pilot."

Both men knew that there was barely time for one man to crawl up to safety, and no time for two. The man who came last was almost sure to be drowned. The pilot sprang up the ladder and escaped. The captain, with a foot on the lower rung of the ladder, was engulfed by the inflowing water and was carried to his destruction. He had gone down with his ship heroically, and for a reason. It was his life or that of the pilot.

Stick to your ship, and go down with it, if necessary, but do not throw your life away because of a false sentiment. Sometimes it is more heroic to live and face trial than to die with hero attached to your name. The modern sea captain is just as brave as any of his predecessors, and he is just as ready to go down with his ship in an emergency, but he no longer clings to it foolishly for dramatic effect. Sometimes it requires as much skill and heroism to know when to abandon ship as it does to stand by it to the death. The same is true in all life. There comes times in every life when the order to abandon ship should have no uncertain sound. We should obey it as a moral duty so that we can save our strength and life for the command of another. The secret of the success of many business men has been to know when to abandon an enterprise that is sinking before it is too late.

Practical Peg

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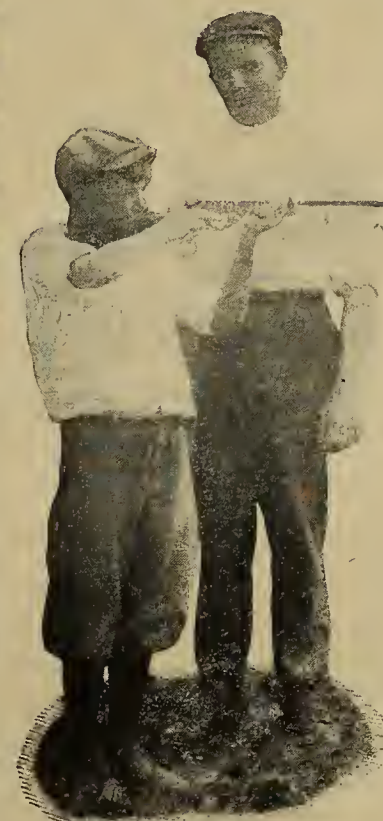
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The Old Spanish Missions of California

By Charles Alma Byers

THE slowly crumbling ruins of the old Spanish mission buildings of southern California there clings much of interest. Besides bearing the distinction of being the only remaining landmarks of California's earliest settlement, there are many reasons why these old buildings with their broken arches and crumbling towers, somberly radiating the reddish hues of sun-dried brick, should command reverence and high esteem from all those to whom the Golden Coast is dear. They tell to the student many an interesting tale, while over them, to the devout, there still seems to hover a halo or atmosphere of sacredness—an atmosphere which tends to lead one's thoughts backward through the vista of years, to another century, to a time when, unlike to-day, these old walls echoed with a medley of voices and were the centers of bustle and turmoil. Through these now dim and dingy corridors once passed to and fro, in noiseless tread, self-sacrificing monks in somber robe and crucifix, and upon the zephyr-like breezes

Anon, from the belfry, softly the Angelus sounded.

And in response to those tolling bells came the dusky, scantily-clad children of the wilderness to kneel at the foot of the cross and to reward the life's work of the Franciscan fathers by perhaps less than a half-intelligent whisper of "Ave Maria."

Those days and scenes, however, belong solely to the picturesque past. With two or three exceptions, the mellow-sounded mission bells which called together those quasi-devout hordes for worship are now hushed forever, and around the buildings grow straggly trees and desert cacti. And even the few bells which still to-day toll forth the Angelus in the morning, at noon and in the evening give but a poor realization of those other days. Instead of dusky Indians and Castilian knights, it is now Americanized citizens in modern dress who kneel and recite their orisons within these walls.

The founding of these missions in California was the result of a policy movement inaugurated by the Spanish throne about the middle of the eighteenth century. It was thought that by colonizing this territory with Spanish subjects the kingdom would secure valuable possessions in the New World; and to stimulate emigration in this direction it was deemed advisable to first establish the Church. Arrangements were, in consequence, made with the Order of St. Francis, the terms of which recited that the missions and the revenues of the property were to belong to the order for a period of ten years, reverting at the expiration of that time to the Spanish government.

In the summer of 1769, two hundred and twenty-two years after this coast had been explored by Cabrillo, the first band of Franciscan friars landed in San Diego Bay. Junipero Serra was the monk who had been chosen to put the plans into execution, and it was he who headed this Spanish band. Work was

begun immediately after landing, and within two months, with the assistance of the natives, the first of the California missions was established. Mission followed mission, and within a few years the coast region from San Diego Bay to San Francisco had assumed a very conspicuous Spanish air.

For a while this mission plan to all appearances seemed to promise success. The daughters of the Indians became neophytes in the convents, and the Indian himself, laying aside his natural proneness to idleness, devoted his attention to commercial development. Agriculture and stock-raising became important industries, and even factories and mills, though after the crudeness of the time, dotted the area. The products of these industries were exported to Spain and England, and the yearly revenues were for a time enormous—sometimes amounting to nearly two million dollars. The mission properties became valuable beyond expectation. The ten-year period, which had been granted the Order of St. Francis, passed unnoticed by the Spanish throne, however, and for more than a half-century the padres remained in absolute power.

The story of the old missions, however, recites not only of a period of success and then decay and final ruins, but of hardships, privations, disappointments and stirring adventures. There were uprisings of the Indians, droughts and earthquakes. The picturesque ruins of the Mission San Juan Capistrano still bear evidence of the severity of one particular earthquake, which wrought havoc on a Sunday morning in 1812. The tower of the building was so shaken that it tumbled to ruin and, crashing through the roof, killed more than thirty of the worshippers who had assembled for the morning service.

Those were also days when pirates ruled the South Seas and cruised along the coast of lower California. Old Bouchard was one of the regular pirate visitors to the coast, and through him the quiet mission settlements suffered much. He attacked the settlements at Santa Barbara and Dolores, but was successfully beaten back. Later, however, he descended upon San Juan Capistrano, drove the natives and friars away and made the old mission his southern California rendezvous.

Twenty-one missions were established in California. The one at San Diego, founded by Junipero Serra on July 1, 1769, seven years before the Declaration of Independence by the American colonies, was the first. The unlucky San Juan Capistrano was started on April 30, 1775, by Father Lasuen, but was not finished for nine years, Father Junipero Serra then being in its charge. Others of the more important missions were established as follows: The San Gabriel Archangel, near Los Angeles, by Fathers Somero and Cambon, on September 8, 1771; the San Luis Rey, by Father Lasuen, finished in 1798; the San Fernando de Espana, fourteen miles from Los Angeles, by Father Lasuen, in 1797; the San Buenaventura, March 31, 1782, and the Santa Barbara, by Father Lasuen, December 4, 1786. The picture at the top shows the old fountain at this mission.



San José Mission

Although this picturesque mission was constructed in 1797, it has withstood the ravages of time wonderfully well. It stands to-day as it was first built by Spanish settlers and has not been remodeled nor beautified as is the case with many other old missions.



The Best Legacy

By Charles Henry Prather

HAVE you ever read the story of Robert Roberts' will? When he died, he bequeathed all his estate to his children and gave large sums of money to benevolent objects; but to his nephew and namesake he left his old family Bible, which was a precious old Book to him.

"I do hereby will and bequeath to my beloved nephew and namesake my Bible, which has been my guide and comfort through my early pilgrimage, and which contains riches for this life and that which is to come. Search its pages diligently that you may have wisdom given you to know how to use the wealth of this world for your comfort and pleasure and for the glory of God; and I pray that you may find therein the pearl of great price, which is of far greater value than all the wealth of the earth, and which cannot be taken away from you." Thus read the clause of the will concerning him.

When Robert Roberts, Jr., heard the will and received the Bible, his anger and indignation were such that he was about to cast it to the ground and stamp it with his foot, but his wife interposed, saying: "Let us take it home, Robert, and if we do not care to read it, we can hide it away and forget the miserly old man who had nothing but an old Bible to give his beloved nephew."

Acting upon this suggestion, the precious old Book was taken home and placed in a pine box and with this inscription: "A Fool's Folly." This was then placed in a trunk in the attic and locked up, and the key thrown away. Here it lay forgotten for twenty-five long years. Children came to the home, but they were never told the story of the neglected Bible

which lay locked in the old trunk in the attic. Sickness and sorrow entered the home. Then came long struggles with business matters, and finally dissipation and death. The mother, enfeebled in health and broken in spirit, soon followed her husband to the grave, leaving three lovely daughters alone in the world.

The home had to be sold, and in the midst of the preparation for the removal of the family the old trunk in the attic was discovered. It was found securely locked, and when Edith was asked about it, she could give no information. As no key could be found, the lock was broken open, and the box was discovered within marked: "A Fool's Folly." This was hurriedly opened, and to their great surprise contained only an old leather-bound Bible with large brass clasps. Mold had gathered on the cover, and the brass clasps were corroded. On opening it, a letter was found directed to her father, written thirty years before. With eager haste they read the letter, which was as follows: "My Dear Robert—When you open this Book to learn from its pages the way of life—which I pray you may soon do—you will find, in addition to its sacred teachings, a snug little fortune of \$50,000. If you neglect to search for the greater blessings, you will lose the lesser, which will matter little if the first is lost."

Our great Teacher, who cannot lie, has told us that this precious old Book contains the promise of the life that now is and that which is to come. Yet there are thousands of poor souls who have marked it as "a fool's folly," and have passed it by when they could be rich with its blessings. "Search the Scriptures; for in them ye think ye have eternal life: and they are they which testify of Me."

The Crisis of Life

By Orin Edson Crooker

THE great crises in life are to a large extent spiritual in their nature in that they compel one to draw upon one's reservoirs of spiritual strength.

A man loses his fortune. It is a crushing blow. Moreover, it comes to him in his declining years when the energy of youth is spent. He can no longer compete with men who are in the full possession of their strength and powers. He must go on to the close of life without many of the comforts and advantages which he thought secure for his old age.

In the last analysis this man is facing a spiritual crisis. It is only through that poise and power given him by the unseen forces of the spiritual life that he is enabled to meet the issue successfully and adapt himself to the changes which circumstances make necessary. Another man, lacking in spiritual endowment, faces the same crisis. With the horizon darkening in all directions, his heart fails him and he throws himself into the sea. He has no reserves of spiritual strength upon which to fall back in his time of need.

Here, too, is a man who suddenly finds himself face to face with a great temptation. It presents itself clothed with all the allurements of which sin is so subtle a master. Has he the spiritual strength to meet and resist it successfully? The

enticement which is held out to him may be that of material gain or the gratification of his baser passions. In either form the crisis as he faces it is entirely spiritual. He will resist successfully or be overcome, according as he is spiritually strong or weak.

What is death when it comes into the immediate circle of one's life but the means of bringing one face to face with a spiritual crisis? At such a time no other staff affords the support that is found in the unseen forces of the spiritual life. How they lend us hope and courage! It is the man who walks consciously with God who meets such a crisis as this, without being overpowered.

We shall probably be called upon to face crises of many kinds as our lives lengthen out from day to day and year to year. If we are to meet them successfully, our lives must be grounded upon the spiritual verities and the companionship of things eternal. Friends, position, money—these things are undoubtedly helpful in such critical moments. But will they prove sufficient? Probably not. It will be from the deep, inexhaustible fountains from which flow the very waters of life that we shall gain that strength which knows no weariness and which is able to sustain when all other things fail.

A Plea for the Farmers' Friend

By E. D. M.

PERHAPS, to the average farmer, sentiment and success are not synonymous, yet I am often amazed at the indifference displayed when it comes to disposing of the surplus members of the barn-yard family—especially the faithful horse that has become too old and feeble to be of active service.

"Dobbin has been a mighty good horse in his time," says the farmer. "If he were ten years younger, I wouldn't sell him at any price, but he is beginning to play out. A. has been wanting him for some time, and I think the wisest thing to do is to let him go now while he will bring a reasonably fair price."

Perhaps mother and the girls shed tears at his departure. They hate to part with old Dobbin; he seems like one of the family. But he must go. The colt is coming on, or there is the expense of buying a younger horse. They comfort themselves by thinking that Dobbin will fare quite as well at neighbor A.'s barn, which, perhaps, he does for a time. But the A. family have not been so closely associated

with Dobbin as to be governed by sentiment concerning him. The last time the master hears of Dobbin he is in the hands of Mr. B., a hard worker who will be sure to get the full value of the price he paid for the old horse.

Perhaps I am only an impractical woman, but my heart leads me to believe that the old servant that has spent his best strength in faithful toil for me has earned a respite from duty in the evening of his life rather than banishment to a strange servitude.

No, Mr. Farmer, if I were in your place, before I would sell old Dobbin, I would steal out to the barn some moonlight night and quietly send a bullet through his brain.

It would be so much more comforting to me to think of his old body as moldering peacefully in the soil of the home farm than to think of him adrift in the world of old horses, toiling feebly, perhaps in the night of blindness, perhaps suffering from hunger and thirst or beaten by blows from strange hands.

Woman's Home Companion

MARY E. WILKINS FREEMAN'S greatest novel, "The Poor Lady," begins in the October number of **WOMAN'S HOME COMPANION**—just published. It is the **COMPANION'S** winter serial, and the editors believe it to be the biggest novel the author of "Pembroke" ever wrote. Everyone will soon be talking about "The Poor Lady."

A CHARMING love story by the author of "The Broad Highway," the most popular novel of the year, is also soon to appear in the **COMPANION**. Jeffery Farnol's new story is written quite in the style of "The Broad Highway"—full of romance, mystery and love.

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Designs by Miss Gould



No. 1835—Dress with Pointed Bib for Contrasting Materials

Pattern cut for 6, 8, 10 and 12 year sizes. Quantity of material required for medium size, or 8 years, four and seven-eighths yards of twenty-four-inch material, with three fourths of a yard of contrasting material, thirty-six inches wide, for trimming



No. 1862—Tailored Shirt-Waist in Two Styles

Pattern cut for 32, 34, 36, 38, 40, 42, 44 and 46 inch bust measures. Quantity of material required for medium size, or 36-inch bust, three and three-fourths yards of twenty-four-inch material, or two and one-fourth yards of thirty-six-inch material. The price of this adaptable and very practical pattern is but ten cents



No. 1833—Empire Dress with or without Guimpe

Cut for 4, 6 and 8 year sizes. Material required for 6 years, three and three-eighths yards of twenty-two-inch material, with one-half yard of contrasting material for yoke and skirt facing, and one and one-eighth yards of thirty-six-inch material for the guimpe



No. 1558—Double-Breasted Plaited Waist Buttoned at Side

Pattern cut for 34, 36, 38, 40 and 42 inch bust measures. Quantity of material required for medium size, or 36-inch bust, three and one-fourth yards of twenty-four-inch material



No. 1707—Misses' Plaited Shirt-Waist

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, three and three-eighths yards of twenty-four-inch material, or two yards of thirty-six-inch material



No. 1865—Waist with Buttoned-on Collar and Cuffs

Cut for 32, 34, 36, 38, 40, 42 and 44 inch bust. Material for 36-inch bust, two and five-eighths yards of twenty-four-inch material, with three eighths of a yard of contrasting material

No. 1559—Three-Piece Skirt with or without Flounce

Cut for 24, 26, 28, 30 and 32 inch waist. Length of skirt, 41 inches. Material for 28-inch waist, seven and one-half yards of twenty-four-inch material. If flounce is used, one and seven-eighths yards of thirty-six-inch material, or three yards of twenty-four-inch material, will be required in addition to above amount

No. 1709—Misses' Gored Skirt with Inset Plaits

Pattern cut for 12, 14 and 16 years. Material required for 14 years, three yards of thirty-six-inch material, or two and one-fourth yards of forty-four-inch material

No. 1866—Four-Gored Skirt with Plaited Panels

Pattern cut for 22, 24, 26, 28, 30, 32 and 34 inch waist measures. Length of skirt, 40 inches. Quantity of material required for medium size, or 26-inch waist, five and one-half yards of twenty-four-inch material, or four and one-fourth yards of thirty-six-inch material



No. 1861—Panel Skirt with Flounce Effect

Cut for 22, 24, 26 and 28 inch waist measures. Material required for 26-inch waist, five and one-half yards of thirty-six-inch material, or three and three-fourths yards of fifty-four-inch material

Woman's Home Companion Patterns

Use the WOMAN'S HOME COMPANION patterns and make your clothes without any trouble. Each pattern costs only ten cents, and may be ordered from the nearest of our three following pattern-depots: FARM AND FIRESIDE, 381 Fourth Avenue, New York City; FARM AND FIRESIDE, Springfield, Ohio, or FARM AND FIRESIDE, 1538 California Street, Denver, Colorado.

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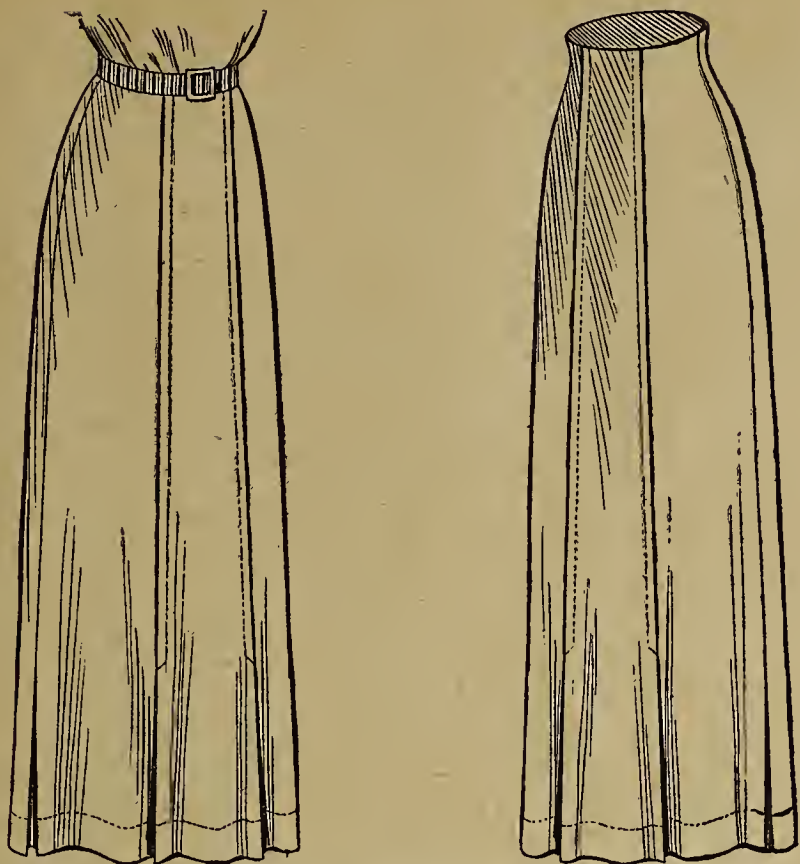


No. 1864—Two-Piece Skirt with Pointed Yoke

Cut for 22, 24, 26, 28 and 30 inch waist measures. Material for medium size, or 26-inch waist, seven yards of twenty-two-inch material, or four and one-half yards of thirty-six-inch material

Miss Gould's Dressmaking Lesson

A New Skirt Made in Two Styles



No. 1826—Six-Gored Skirt, High or Normal Waist-Line

Cut for 22, 24, 26, 28, 30, 32 and 34 inch waist. Length of skirt, 41 inches. Material for 26-inch waist, seven and one-eighth yards of twenty-four-inch material, or four and three-eighths yards of thirty-six-inch material. When the normal waist-line is used, three eighths of a yard less of twenty-four-inch material, or one fourth of a yard less of thirty-six-inch material, will be required. Price of pattern is ten cents. Order from the nearest of the following pattern-depots: Farm and Fireside, 381 Fourth Avenue, New York; Farm and Fireside, Springfield, Ohio, or Farm and Fireside, 1538 California Street, Denver, Colorado

THIS skirt can be made with a high waist or a normal waist-line, and has just sufficient fullness introduced in plaits at the bottom to make it a comfortable skirt for every-day wear.

The pattern No. 1826, Six-Gored Skirt, High or Normal Waist-Line, is cut in seven sizes, for 22, 24, 26, 28, 30, 32 and 34 inch waist measures. In the high-waisted effect it should be becoming to figures from 22 to 30 inch waist sizes, but in the 32 and 34 inch sizes the normal waist-line should be used.

The pattern envelope contains seven pieces, which are lettered as follows: The front gore E, the first side gore M, the second side gore N, the back gore H, the front of inside belt V, the back of inside belt T, and the outside belt, for the skirt with the normal waist-line, A. These letters are perforated through the different parts of the pattern to identify them.

Before placing the pattern pieces on the material, smooth them carefully, removing all the wrinkles from the paper.

In cutting, lay the edges of the front gore, the back gore and the front of the inside belt, marked by triple crosses (xxx), on a lengthwise fold of the material. Place the side gores, the back of inside belt and the outside belt, with the line of three large round perforations in each, lengthwise of the goods. Cut out the notches and mark all the perforations carefully before removing the pattern pieces from the material.

To Make the High-Waisted Skirt—Form the plaits on the edges of the front gore and the back gore by bringing the corresponding lines of triangle perforations together. Baste on these lines the full length of the plaits, but only stitch from the upper edge to within thirteen inches of the bottom. Leave the bastings in the plaits and press so the outer edges will lie flat. You will find that three eighths of an inch seam has been allowed outside of the stitching on these plaits.

Now join the side gores as notched. Pin at the notches, at the upper edge and at the edge above the slash that is made at the top of each extension. Then pin in between these points, and baste this part of the seam first. Match the notches in the extensions at the side, pin and baste.

Form the plaits in the lower parts, or extensions, by bringing the corresponding lines of triangle perforations together. Baste on these lines and press flat. The creases in these plaits come on an exact line with the seam above and, if you press them well, the inverted plaits will hang straight, flaring only when you walk.

Join the front gore and the back gore to the sides according to notches. Hold the edges of the front and the back gores toward you when you are

joining these bias seams. Leave an opening at the left side of the back gore for a placket. The single notch indicates the regulation depth of the placket.

Join the backs and front of the inside belt as notched. The side seams of this belt should be boned and, if there is a tendency to wrinkle, you can stitch a bone casing at each side of the belt, front and back, just where the plaits in the skirt will come and cover the bone.

After the belt has been made and boned, join it to the skirt, matching the upper edges as notched.

Turn a three-inch hem at the lower edge of the skirt, by the line of large round perforations. Baste as near the edge of the skirt as possible.

Turn in the upper edge of the hem three eighths of an inch, and be careful not to stretch this edge when you are basting it. Now place the skirt flat on the table and pin up about half a yard of the hem at a time. Baste that half-yard before pinning any more. Tiny darts will form at irregular intervals. They must be basted and pressed flat. Then, if they do not remain in place, hem them down by hand, using very fine, small stitches.

To Make the Skirt with the Normal Waist-Line—The normal waist-line in this skirt-pattern is indicated by lines of small round perforations; cut off each gore along this line, and follow it exactly when cutting.

The gores are joined and the plaits made as they are in the high-waisted model. The pattern for the entire outside belt is given. Join this to the top of the skirt. The line of large round perforations in the belt indicates the center front. Match the centers of skirt and belt, also bring the edges of the belt to the edges of the second left side gore and of the plait on left side of back gore.

When you are putting in the hooks and eyes for the placket, sew the eyes along the edge of the second left side gore. Have the front end of each hook come just to the line of machine-stitching that holds the plait on the left side of the back gore. This brings the hooks an inch back from the edge of the plait, and conceals them when the placket is closed.

As the skirt fits closely around the hips, and the placket is concealed beneath the plait, it will not be necessary to finish the placket with a fly on one side and a facing on the other. Only have a fly on the left side, along the curved edge of the side gore.



Miss Gould will be glad to answer any questions pertaining to home dressmaking which may perplex readers of Farm and Fireside. She will send by return mail a personal letter to the writer if a stamped and self-addressed envelope is enclosed. Direct all letters to Miss Gould's Dressmaking Department, care of Farm and Fireside, 381 Fourth Avenue, New York City.

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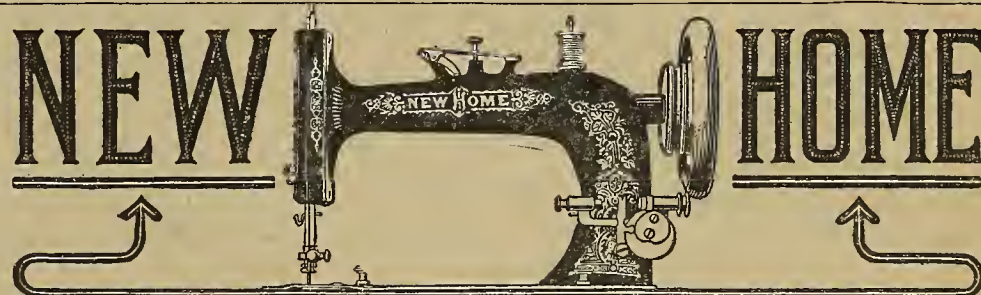
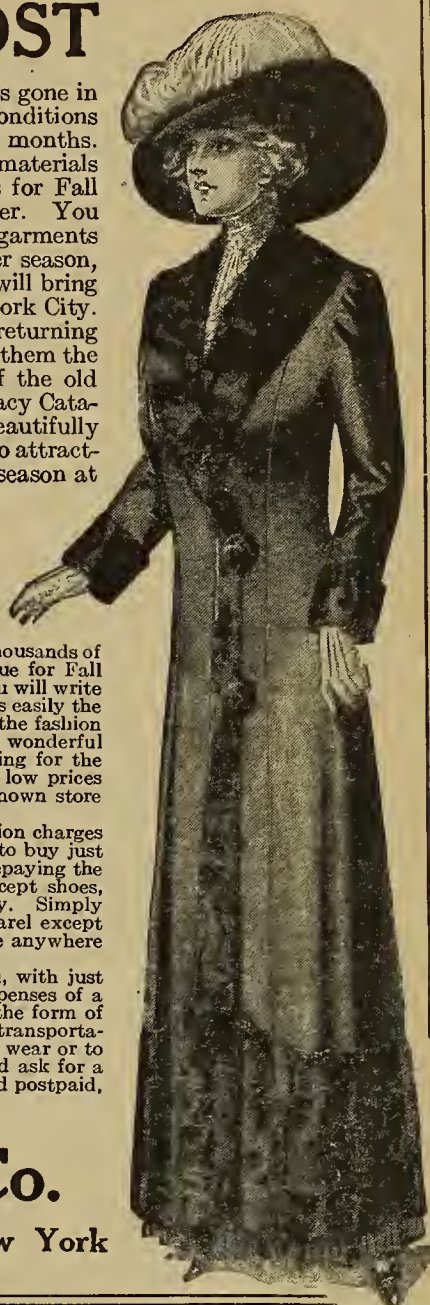
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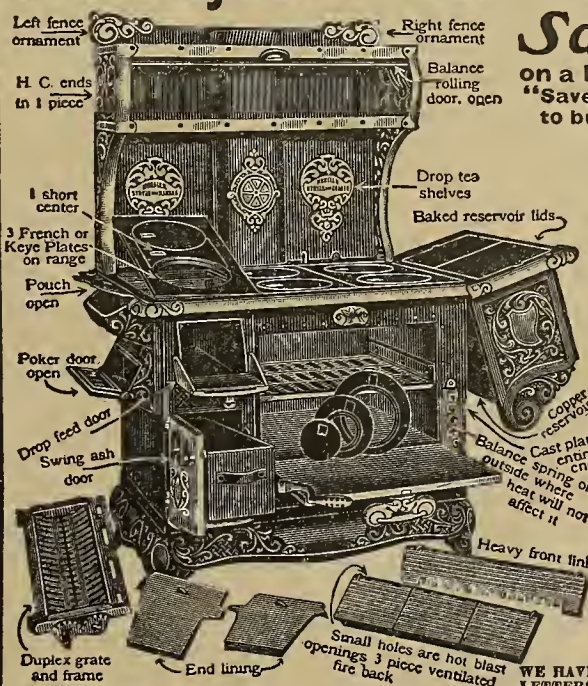
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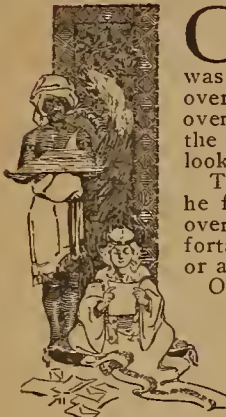
Conducted by Cousin Sally



The Princess, the Prince and the Proxy

A Two-Part Story by Tudor Jenks

Part I.



ONE of the coziest times of the day in the royal palace was the half-hour or so just after breakfast, when the king was finishing his coffee and taking a glance over the newspaper, the queen was thinking over her work for the day, and the prince—the oldest, the heir to the throne—was looking at his letters.

The king would read out such items as he found interesting, and would talk them over with his wife and son, just as comfortably as if he were only a drum-major or a muffin-man, for he had no work to do.

On a particular Thursday morning after they had had waffles and plenty of syrup, the king suddenly slapped his newspaper and exclaimed: "Here's your chance, Bob!" "Bob" was his family name for the prince. But this was not because Robert was the prince's full name, for he had a whole drawerful of names like other princes, being named after pretty nearly all his uncles, cousins and grandfathers, and each of them had a lot of names, too, and so—

But never mind, you know how it is with princes and names.

"Here's your chance, Bob," said the king. "Listen to this, my boy:

"Prize Competition

"Hand of Princess Dimplechin to be awarded to winner! Tasks neither too hard nor too easy. Enclose stamp for terms. Address King of Mountainia. Last day for entries next Saturday."

"There!" said the king, as he laid aside the paper. "Now you have a chance to win the hand of the sweetest little princess for miles around. Really, if I were young again, and hadn't been lucky enough to marry your mama, and the Princess Dimplechin had been born in my time, and if—"

"Randolph," said the queen, "are you not wandering from the subject a little? Prince Robert is but a boy yet—"

"How absurd!" exclaimed Prince Bob, "you'll always think me a child, Mama!"

"Don't be disrespectful to Her Majesty," said the king, severely, "or I shall give you a deserved reprimand."

"Ah, cut that out," answered the prince, who was not at all nice to his parents, being rather spoiled in some ways. "You know you'll forget all about it before dinner-time. What was that stuff you were giving out from the paper?"

The king frowned, and for a moment thought of talking seriously to his son. Then he reflected that if Prince Bob should try to win Princess Dimplechin and should get into trouble with some fierce giants or wicked enchanters, it would be an excellent lesson for him, and that he would either win the hand of the princess and settle in Mountainia or would be snuffed out by the enchanters, and in either case that he would be no more trouble to his parents. So the king said nothing more about manners, and read the advertisement once more.

"Sounds good, doesn't it, Bob?" he remarked, again putting down the paper.

"Not so awful bad," said the prince, with a yawn, as if he were bored.

"I really think," the queen observed, "that I would answer that advertisement."

"You'd look fine marrying the princess!" the prince said, laughing rudely and throwing a piece of toast at the cat.

"I am in no mood for joking," was the queen's answer, as she took a hairpin and carefully sawed out the item from the paper. "I wish you would send in your names for this competition. You'll find a postal card in the pocket of my blue-checked apron, hanging on the hook in the pantry."

"And how am I going to enclose a stamp in a postal card?" asked the prince, with another grin at the queen.

"Well, write a letter then, and do it at once, or I'll

write one to your godmother!" was the queen's reply. This made the prince quiet right away, for his fairy godmother would stand none of his nonsense—not for a minute. Why, once when he did something she didn't like, she changed him into a window-mop for two weeks, in winter, and he was used to wash the palace windows till he apologized and was forgiven!

So now he said: "Oh, all right! I was only fooling. Course I'll do it. I don't mind marrying this Dimplechin girl, if she's all right."

Wouldn't Princess Dimplechin have been furious if she had heard that?

So the prince went whistling away from the breakfast-room, not trying at all to walk softly, nor saying "Please excuse me, Papa and Mama," or "By your leave, your Royal Highnesses," and, besides, he slammed the door when he went out so that the king's spectacles fell off, and the queen jumped as if she were shot, and dropped a stitch in the blue socks she was knitting.

"My dear," said the king mildly, "if he were just a common, ordinary boy, what a very common and ordinary boy he would be!"

"Yes," sighed the queen, "if I weren't his loving mother, I could really dislike him very much!"

Meanwhile the prince had stumped up-stairs, mused up his mother's desk to find some note-paper, turned his father's study-table into a perfect hodge-podge to get a pen, and upset the ink-bottle, as a preparation for writing the note to say he would enter into the competition for the hand of the lovely Princess Dimplechin of Mountainia.



"When Prince Bob had finished his letter, it looked simply awful, but he didn't care"

You may ask why he had not simply sent some of the palace servants to get what he wanted. But the answer is that they had only one—and it was her Thursday out. You see they had been turned out of their kingdom nearly a year before, since the people found them very useless and very expensive, as well as a rather unpleasant family. Still, they were of royal blood and all that, and so they called their house a "palace" and kept their titles just to be stylish. Some royal personages are just as nice as anybody—Princess Dimplechin was a perfect dear, by the way—but Prince Bob and his folks were horrid, and didn't really want to be different.

When Prince Bob had finished his letter, it looked simply awful, but he didn't care, and put it on the hall table to be mailed. And that night the queen sat up late writing a really neat one, which she signed for her son, and put in the place of his.

The queen wrote a very nice hand: and so when little Princess Dimplechin was looking over her mail next day she said:

"Papa, dearest, here is such a neat, sweet and discreet little note from Prince Robert of Swampland. I should think he might be very nice indeed."

"If he is," her father answered, "he is not much like his father, whom I knew some years ago."

"But see what a pretty note this is," Dimplechin remarked, handing it to her royal father.

"Looks all right," her father admitted. "Well, send him one of the circulars, and we shall see what we shall see," which sounded wise and really meant nothing one way or the other. Kings often have to talk like that, and so it comes natural to them.

Consequently, Prince Bob received a neatly printed circular inviting him to compete for the hand of the Princess Dimplechin. And when he had read it over, he didn't like it at all.

For the tasks were not a bit like what he had expected. He was the old-fashioned kind of a prince, and had thought he would simply go to his fairy godmother and by a little "sweet talk and soft sawder" (as he put it) could get her to give him a magic ring or staff or charm that would make everything easy for him.

But these tasks were not the sort he could do in that way. They were just little, easy, every-day things that anybody might think of. For instance, "The competitor must run a mile at a fair rate of speed."

"The competitor must be able to swim and dive. The competitor must write a neat, plain, sensible letter to the princess."

"The competitor must be able to do easy sums without errors."

"The competitor must shoot well at a mark. The competitor must be able to understand and use his own language."

And so on, and so on—why, there was even a lot of stuff about being able to use tools and to cook and to draw!

Prince Bob didn't like any one of the tests, and before he was through reading the circular was disgusted.

"Bosh and botheration," cried the prince. "Did anyone ever hear such tommyrot? Imagine me going to my fairy godmother and asking her to give me a magic frying-pan so I can cook a rasher of bacon! or a magic slate-pencil to do sums! And I think I see myself after running a mile! Why, they're not looking for a prince; what they want is a—plow-boy, or one of those duffers that do chores!"

Then, after thinking a moment, his expression slowly changed from a frown to a grin, as an idea came to him.

"It would serve 'em right!" he chuckled. "If they want a chore-boy, a chore-boy they shall have!"

And at once he sprang to his feet, upsetting his chair, and ran clackety-clackety down-stairs to the wood-cellar.

"Here you, Jack!" shouted Prince Bob in a gruff voice. "I've got something for you to do! So you can just drop that ax and come up-stairs where I can tell you all about it."

[TO BE CONCLUDED IN NEXT ISSUE]

Cousin Sally's Letter to Her Girls and Boys



DEAR GIRLS AND BOYS—

It seems rather late to be talking about vacations, but you remember that I promised to tell you a little about Nantucket and show you one or two of my snapshots. So here they are. Isn't the old windmill quaint and charming? To think it was built in 1746, thirty years before the Revolution! It stands on the highest point of Nantucket, and the funny old man who takes care of the mill, and shows you all through, boasts that it is the oldest windmill in the world, and that people from all parts of the land come to see it. If you should look as though you doubted his word, he will beckon you to go over to the old desk near the window and in a sort of now-will-you-believe-it manner will open the big register book and point out the names of people from South Africa and Australia. Think of it!

The other picture shows a typical street in Siasconet, which is on the eastern coast of the island. On our way here the driver took us across the moorlands—great, rolling, grassy meadows with brush and bracken in varying tones of green clumped here and there, and dotted with bunches of yellow flowers (I did not know their names), sweet-smelling bayberry and some kind of thick, low-growing shrub. But best and loveliest of all were the wild roses. They blossomed everywhere, on the moors, in hedges, by the roadside, everywhere that a rose could grow, there you would find one, bravely lifting its face to the sunshine. Scotch heather grows in one little spot, but it is guarded carefully by the islanders, and the place is kept secret, for a great many vacationists have discovered the heather and have pulled it up by the roots to plant in their city gardens. It is such a shame, for I do not think it has ever been known to thrive so well in any part of the country as it does in Nantucket's rich, fertile soil.

There were no trees to speak of on the moorlands, except a fringe of stunted cedar, pine and balsam. I was surprised to see so many wild grapes and blueberries. Mosquitoes were thick where the blueberries grew, so we did not stop there very long.

Do you know what an old sea captain told me? That Nantucket was sold by the Indians to the white settlers for five dollars and a white beaver hat. The chief of the Indian tribe always wore the beaver hat. Nantucket was settled by the Quakers, and years back these beautiful moorlands were well-kept farms. At that time the island was thickly wooded, but the settlers cut down the trees to build their homes and to use for fuel.

Before the discovery of petroleum, Nantucket was the wealthiest island off Massachusetts. Whaling was the chief industry. Perhaps your grandfather remembers when whale-oil was used. When people began to use petroleum to the exclusion of whale-oil, Nantucket's prosperity lessened, and all the Nantucketers who could went to California to make their fortunes in the gold-fields. So the island was pretty well deserted.

Many of the old houses which are still standing at Nantucket have little balconies around the chimneys, and it was

no uncommon sight in those days to see the good dames standing on these lookouts with hands to eyes, peering out over the sea, to catch a glimpse of the returning whalers and their sea-faring husbands.

And now I must tell you about the dear old lady I met who lived up on the hill near the windmill. She was eighty-three years old and had lived in Nantucket ever since she was married, some fifty years ago. It was pathetic to hear her tell us about her young husband who went away to sea and was never heard from again. All her children had married and she was left there alone in "Joyous Nest." This is the delightful name her bairns had given the little home of their birth. Mrs. Joy, in spite of her fourscore years, is one of the busiest and happiest little ladies in the world. She does every bit of the housework alone and she proudly pointed to the dining-room and told me to notice how spic and span everything was. Why, it was better than I could have done, I believe, and you should have seen how well she sewed and darned the stockings.

She was quite a belle in her day. You remember reading about the big ball that the New Yorkers gave to Dickens on his first visit to America? It was held down-town in Barclay Street. Well, our dear old lady of "Joyous Nest" treaded the minuet with Charles Dickens. Can't you picture it all? Her eyes fairly glistened when she told us about the gown she wore. It was rose-colored brocaded silk, with slippers to match. She confided coquet-tishly, "I had all the fixings that went with the dress."

And now I want to tell you the names of the lucky boys and girls in our July 10th contest. They are: Rosa B. Zellmer, Eloise Case, Ralph M. Toombs, Florence Minkler, Mabel Hamilton, Ida Brosmer, Willie Bloom, Bertha May Mundion, Sophy Barlund, Effie Dross.

I have only room enough to say good-by. With much love to you, COUSIN SALLY.



The Home Interests' Club

By Margaret E. Sangster



AS A club, we, who are devoting our time and thought to the interests of home, must beware of becoming back numbers. I beg you to pardon the use of slang. I do not know how it may be with you, but there are moments when I cannot resist the temptation to avail myself of a convenient and picturesque colloquial phrase, although I admit its lack of elegance.

Back numbers have their value, and should not be cast aside as worthless simply because they have been superseded by their bright and new successors. The back numbers of FARM AND FIRESIDE contain almost an encyclopedia of information on practical themes to which the readers may confidently turn for purposes of reference or refreshment of memory. When one compares herself in a mood of depression to a back number, she is not thinking of the numbers issued this year or last year or the year before that. She is reflecting on the pile of old magazines in a dark corner in the attic or on the top shelf of a closet in the up-stairs store-room. They seem too good to give away and she at one time thought of having them bound. Being, as we all are, absorbed by other things and, moreover, having plenty of avenues for the spending of money, and not being sure about the precise style of binding that would best suit the library, she allowed the time to slip by. Benny was a baby when some of those magazines came into the house. The family councils are interested in the boy's choice of a college. He is to spend a year in business before he enters as a freshman, and this, by the way, is an excellent plan for a wide-awake boy who will be a useful man in time. To-day he is prepared for college.

Now I arrive at my point. If you shall take down on a rainy day a half-dozen of the old magazines, you will discover in them treasures of delightful reading. You will wish you had given them to the Old Ladies' Home, the Salvation Army or an orphanage a long time ago. You consider whether you may not yet dispose of them in that way, and you are averse to the point of pain at the thought of sending them to the paper-mill to be ground to pulp by its machinery. Yet, in comparison with the breezy, mirthful, sparkling and scintillating magazine that Jane brings in from the post-office, waving it joyously as she comes and calling on you to get ready and listen to the latest instalment of the serial that grips you at the heart, these old staggers seem but desiccated specimens. They are excellent, but old-fashioned. To sum the whole thing in another convenient and picturesque bit of slang, they are not up-to-date. How can they be? They have been in retirement sixteen or seventeen years.

Arrested Development

That which we women, into whose hands has been placed the sacred guardianship of the home, should avoid with diligence is arrested development. We ought not to rest contented with what we learned in our school-days. Neither should we accept as law and gospel the axioms of departed and saintly persons who were fitted to their day and generation, but are not precisely adapted to our own. Let me illustrate.

A young girl brought up in a conservative and aristocratic town of the Middle West, accustomed from childhood to regard the details of table etiquette as most important, and trained in the niceties of social conventions, married for love and went to live in the home of her mother-in-law in a frontier state. She had met her husband at a co-educational college from which they both had been graduated. The only possible way for them to begin their blended lives seemed to be the one they adopted. The parents-in-law were the salt of the earth, but in every single aspect, except in regard for honor and integrity, they were the width of the world apart from the wife of their son. When she ventured to kiss her husband in their presence, his mother frowned and his father sneered. When she changed her dress from the morning gingham to a pretty afternoon challis, her mother-in-law kept coldly aloof and declined her help with the dishes. When she used monogram paper for her home letters, there was a protest against frippery and extravagance. The trial was the greater that the old people deemed themselves in the right, forgot that they had been young, and, in fact, were withered specimens of youth overlaid by the sear and yellow leaves of age. Do not, dear friends of the Home Interests' Club, suffer yourselves to be bound by fetters of prejudice. Remain open to new sensations. Do not be deterred from changing your mind if the forward movement of the period convinces you that you must readjust your former convictions or step out of the procession. Do not be a proud and disdainful matron, clinging stubbornly to yesterday, instead of a sympathetic and genial one, taking in stores to-day.

After one has grown a trifle stout and a wee bit middle-aged, one may not be able to walk so fast and so far as once she did, and tennis may be out of the question for her. If ever one played croquet or golf, one need not abandon that because of avoirdupois.

Keeping Up Accomplishments

If ever one played the piano, one need not forget her music, although in her thirties and forties and fifties the rolling-pin, the vacuum cleaner and the cream-separator have enlisted her attention to such a degree that she has had little leisure for recreation and practice. The great peril that confronts American women is the peril of being too busy, too constantly occupied in practical matters and too reluctant to delegate a portion of their duties to other folk. If you acquired an accomplishment by toil and pains and the spending of money when you were a girl, refuse to let it slip from you now. On the contrary, resolve to retain it as a defense against growing old. A teacher of physical culture said in my hearing that though a woman might be eighty she ought to have a young back. At once I remembered walking down the street of a southern town one day in the sixties. Before me, with a light, elastic step, walked a woman who had the carriage of a queen. So erect was her bearing, so graceful the poise of her head and so trim was her figure that I thought she must be somebody's granddaughter. As I passed her, I was startled, amazed and delighted, too, at the revelation that came in a glimpse. She was evidently somebody's grandmother, a beautiful woman, in her later seventies, who had not lost an atom of the distinction and grace of her girlhood. I do not know whether she had kept up her accomplishments, but she had certainly known how to preserve youth and health.

New Wrinkles in Cookery

This is not a meeting of the Home Interests' Club. It is a candid and confidential talk with its members. I say confidential not in the sense of reserve, for what is written and printed for everyone to read may possibly fall under the eyes of John

as well as of Mary. I am not afraid of John, and I like to think that he approves of everything agreeable to Mary. I am sure that he is not like an ungallant husband of whom I heard the other day. His wife had taken the trouble to prepare for him a very charming dinner, had set the table with her best china and placed a vase of roses on the centerpiece. She had specially instructed her little maid in the manner of waiting at a meal and had invited a married pair to share the feast. When our good man sat down, he looked askance at the soup and pushed it away with a grimace. When the duck was brought on, he turned to his wife sitting opposite him and made the astonishing remark, "What a fool you were to give us a duck. If there is anything that I dislike, it is that." This sort of behavior carried on throughout a meal was enough to convict the man of conduct unbecoming a husband and a gentleman.

The fact that he claimed to be a rough diamond and flaunted his ill manners as if they were decorations was not condoned by his being a university graduate and a man of liberal culture. He said he could not tolerate wrinkles in housekeeping. Small was the wonder that the poor wife found her way, before long, to a sanatorium, that exhausted nerves might be given a chance of reinforcement.

I began to speak of new frills in cookery. What do you think of the new idea of

Cooking in a Paper Bag?

Paper-bag cookery is the name of a new departure in culinary arts. Soyer, an accomplished London chef, has been patiently experimenting along this line for some years. He discovered for himself that a chicken enveloped in foolscap and so roasted in the oven was much more tender and toothsome than a chicken roasted in the ordinary way. After a while he decided on cooking a great many articles, not in foolscap, but in a paper bag of sufficient size to cover them wholly. Finally, as his idea developed, paper of a certain weight and quality prepared by a scientific process was used in his kitchen. One step leading to another, paper-bag cookery was described in a book, and the book selling by thousands, everybody in the British Isles was presently discussing it, and in houses of every style, from the palaces of aristocrats to the cottages of tenant farmers, it was sent to the table. I can imagine your smile of incredulity when you are told that almost everything served at an ordinary table in our ordinary three meals a day may be cooked in a paper bag. Tea, coffee and soup are not to be thus prepared, but fish, entrées, poultry, meat and most vegetables are delicious, it is said, when thus prepared, while as for pots and pans, the labor they cause is amazingly diminished. By the time I have cooked a whole dinner in paper bags I shall know more about this practically than I do to-day. I know that the bag which resists the strongest heat is placed upon a gridiron with the article it encloses and the gridiron is then set in the oven. Rules and details are given for the benefit of women interested, and if you do not object to novelties in housekeeping, you will probably experiment for yourselves in this daring discovery. Paper-bag cookery is the latest fad, and this is why I mention it to the Home Interests' Club.

Eating at Bedtime

When I was a girl, I was often a guest in the hospitable home of a schoolmate. I remember that her mother, who was a Welsh lady,—and just let me say that I prefer the word lady to the word woman in alluding to her, so fine was she, so original and charming—insisted on our eating a slight repast before we went to bed. The glass of milk and the plate of gingerbread which furnished our evening meal never caused us indigestion, but I think went far to insure us healthful sleep. We were studying three or four hours at home after a strenuous day in school, and, although we had enjoyed three meals, the motherly friend, whom I still remember with very tender love, declared that growing girls required nourishment to the extent of a fourth meal at the end of the day. This rule is not of universal application, but I know several girls' boarding-schools where the pupils are provided with thin sandwiches of bread and butter, bouillon, fruit or milk to take or leave before they retire. Many older people who suffer from insomnia would be relieved and drift into the arms of "tired nature's sweet restorer" if they would be persuaded to eat before going to bed. A chafing-dish meal, or a Welsh rarebit, black fruit cake or mince pie cannot be recommended at this end of the day, nor for this purpose, but a light repast should not be forbidden if one or more of the family may have a mind to try it.

The Good Man's Hobby

All the better for your good man if he have a hobby, no matter what the hobby may be. We should have, if we can, something to lift us out of the daily rut. In a Pennsylvania town I have met a stone-mason who devoted his life to his trade and was successful in it, while his hobby was the collection and classification of moths and butterflies. He possessed a wonderful cabinet filled with choice specimens and corresponded with enthusiastic collectors, exchanging specimens with them, in every part of the globe. The pursuit of his hobby made him the most interesting of men.

Another, this time a woman, has all her life been a maker of scrap-books. She is a notable housekeeper and has brought up a large family in the most unexceptionable manner. Her husband adores her and her children do her credit. She has never intermitted her scrap-book habit, and she does not arrange her clippings in envelopes or attempt to regulate them by method. She simply pastes poetry, anecdotes, personalities, jests, bits of history, reports of inventions, limericks, amusing pictures, whatever she finds and wherever she comes across it, into a commonplace book. All she has ever needed for her purpose have been a cheap manuscript book, a paste-pot and a pair of scissors. The result is a sort of Jack Horner pudding. "You put in your thumb and you pull out a plum," and my lady's scrap-books may be depended upon to brighten the dullest day, to amuse an invalid and to waken fun and laughter in the soberest company.

To My Readers

May I ask you to do me a kindness? Write and tell me what you most need in home life, what subjects you would like discussed in the Home Interests' Club and what books you think best suited for winter reading around the lamp. I am at present interested in the upbringing of young people in their early teens. You can send me attractive and helpful letters. If you wish a personal reply, accompany your letter with a stamped and self-addressed envelope. Communications will be regarded as confidential unless you say that you do not mind seeing a part of them in print. Address FARM AND FIRESIDE, Springfield, Ohio.



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Professor Sanderson, Dean of West Virginia College of Agriculture: "Your Scholarship proposition is an admirable one and meets with my approval."

Professor Holden, Iowa College of Agriculture: "Your Scholarship plan will certainly be a good one from the standpoint of the College and will result in much good. There could be no grounds for criticism in regard to the plan."

Professor Pettee, Dean of New Hampshire College of Agriculture: "I have brought your liberal offer to the attention of the New Hampshire College authorities and they are unanimous that your Scholarship offer is a very liberal one and are perfectly willing to put it on a basis with all other Scholarships mentioned in the catalogue."

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Illinois State Agricultural College,
Urbana, Illinois.
Iowa State Agricultural College,
Ames, Iowa.
Kansas State Agricultural College,
Manhattan, Kansas.
Minnesota State Agricultural College,
St. Anthony Park, Minn.
Missouri State Agricultural College,
Columbia, Missouri.

Michigan State Agricultural College,
East Lansing, Mich.
Mississippi State Agricultural College,
Agricultural College, Miss.
New Hampshire State College of Agriculture,
Durham, N. H.
New York State Agricultural College,
Ithaca, N. Y.
North Dakota State Agricultural College,
Fargo, North Dakota.
North Carolina State College of Agriculture,
Raleigh, N. C.
Nebraska State Agricultural College,
Lincoln, Nebraska.
Oregon State Agricultural College,
Corvallis, Oregon.
Ohio State Agricultural College,
Columbus, Ohio.
Pennsylvania State Agricultural College,
State College, Pa.
South Dakota State Agricultural College,
Brookings, South Dakota.
West Virginia State Agricultural College,
Morgantown, W. Va.

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The FARM AND FIRESIDE Scholarship is not a competitive prize contest, but every candidate can win a Scholarship. Every candidate has an equal chance to win a Scholarship and take a course in Agriculture this winter. You should send in your nomination right away as the number of candidates for this Scholarship will be limited and the sooner your nomination reaches us the more likely you are to be accepted as a candidate. Remember you will be placed under no obligation. We will ask that as an evidence of good faith you do a small and definite amount of extension work for FARM AND FIRESIDE in your community. The \$100 Scholarship will be paid you in cash when you enter one of the above Agricultural Schools.

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At..... For reference

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State.....

(Send in your nomination at once.)

The Harvest-Day Dinner

By Margaret Humphreville



NE of these days, no telling when, the women of America are going to rise with knives, forks and spoons against the tyrannical practice of cooking feasts for farm laborers. Not that they wish to shirk the duty, far from that; but they demand a fair deal in the harvesting season.

The spirit of rivalry existing in the country in which women have been cooking for years and years to outrival the excellent repasts as served by their neighbors is a condition which younger America resents. And why not?

Think for a moment how foolish, how useless, how selfish, of the men to expect any woman or number of women to slave in the hottest days of the year to provide unnecessary provisions for their respective meals "while helping harvesters."

"I am willing to bake bread, cake and pies," commented one frail little woman, "and I wish to provide substantial meals for those who assist my husband, but why must I take upon myself the burden of a task, busy as I am with other farm duties, the care, too, of my little children, to do that which is wholly unnecessary?" She looked the living picture of despair. Uncovering a large table, she displayed many loaves of fine bread, layer-cakes, cookies and custard pies—the most difficult to make. Too, those men were being paid for their labor upon her husband's farm.

Wherein is the justice of such conditions? What kind of a man is it who wants to come from the heat and toil of a hay-field to eat three kinds of meat, vegetables, cakes, ice-cream and delicacies which, while they appeal to the appetite of an epicurean, are unsuited to those who must leave the table and go into the fields? Good sense, hygiene and ordinary breeding should appeal to those who expect it. Men laboring in the harvest fields are as hungry as wolves upon a lonely plain when dinner is served. They demand good food, substantial viands of different kinds, cooling drinks and an hour of perfect rest. No man who partakes of a hearty meal is in any condition to go into the hot fields to labor. Not only is his health in danger, but the machinery of his body is busy at work taking care of the consumption of food, and he is not physically able to do his work. He works on the strength of ambition.

If the cooking alone were all that one had to consider, it might be easily managed, but often it necessitates hiring maids to assist in the toilsome work; again, help is not easily secured. Sick or well, the farmer's wife must be up at break of day to prepare these feasts for the gods of the field. It means hours and hours of dish-washing, killing and cleaning fowls, baking meats, preparing vegetables, etc., until it is little wonder that, after the season is over, there are so many sickly women throughout the farm districts.

Said one woman: "I have toiled incessantly for years and years, never, seemingly, being able to cook enough. It makes me ashamed to think so many of our helpers are men of such unreasonable dispositions. Their chief aim is to get as great a variety as possible and to eat

as much as ten men. I am tired to death of it! This year I propose to have bread, meat, vegetables and cake, for men do love cake, and also good beverages, but ten of us have agreed to have just the same things, and we are not going to prepare feasts for any of them. If their work were gratuitous, which it is not, then we might make extras, but, as it is, we are going to prepare good, substantial dinners and quit right there and then. And another thing, we will do away with much of the small-dish service. I have washed dishes for hours when it was wholly unnecessary. The food thus wasted would keep my family for a month."

Now, is she not justified in demanding justice of farm hands? What kind of a man is he who would expect a woman to drag the soul out of herself to cater just to his appetite? Candidly and truthfully, I do not believe the men were ever responsible for it. It was the outcome of rivalry in olden times to see which woman could provide the best meals in the country. They brought the trouble upon themselves, and their granddaughters must either proceed in the beaten path or clear the road at a jump. Good sound sense and reason must be each woman's monitor in the case, for truly our American farmers are not cormorants, and it is possible that all would feel satisfied if the meals were arranged according to the dictates of each farmer's wife. It is not possible that one would find fault; if he did, then take him in the house and serve him a fourth meal, then put a ring in his nose.

Profitable Kindness

By Alice M. Ashton

COUNTRY children should be taught kindness to animals, as they will undoubtedly have control of them to a great extent.

This is largely a matter of teaching. Never mind if some of the neighbors, or the hired men, or even the father himself, does set a bad example. That is no reason for giving up improvement.

Teach them that it is manly to protect the weak and helpless; for every boy wants to be manly.

Begin in the children's very babyhood by interesting them in the cat, the dog, the fowls and birds; let them feed and care for them and learn of each one's usefulness.

The boy who has been trained to believe the horse a farmer's most useful and valuable animal friend, will seldom be guilty of misuse or neglect.

If he has been taught to be proud of the excellent condition of the cows and to keep a record of their income, he will be little inclined to run them in from the pasture, or club them about the stable. He will do anything in his power to make the new puppy the "best cow dog" in the neighborhood, instead of spoiling him with play or blows.

A business or professional man who wishes his son to follow in his footsteps, does everything in his power to teach him every detail of the work. Why does not the farmer do as much?

The boy who likes the farm stock will make a study of its care.

The Deeps

[CONTINUED FROM PAGE 18]

She nodded, not looking up, calmly smoothing on her gloves, and with a curt "Good-day" John Matherson arose and strode from the room.

She followed leisurely. Outside her little gray runabout stood waiting.

A crowd had gathered on the corner below, and a policeman touched his cap as he passed: "A man run over," he informed her; "he didn't seem to hear or see, and God knows it's small wonder, for that red thing came tearing around the corner like a mad devil and struck him square."

A sudden whiteness came to her cheeks. "Is he—" she moistened her lips, she couldn't say the word. Again her lips parted, "dead?" she faltered; but her voice sounded like a hollow echo in her ears. Then, not waiting for an answer, she hurried to the corner just as the ambulance came dashing up.

When he opened his eyes next morning and looked wonderingly about, the white-capped nurse tiptoed quietly out, and the gray-robed figure slipped one arm gently under the bandaged head, as she knelt beside him, her cheek pressed softly against his.

"Poor old blind John," she laughed, though something big and hard seemed choking her, "it's all right, dear. Doctor Pat is on his way, and when he gets here, we're all going home together."

He drew a long breath. His hands clenched. "You mean—you mean—"

Her cheek pressed closer. Her heart was too full to speak.

The nurse entered. "The five minutes are up," she cautioned. "Now you must leave him with me."

But John Matherson reached out his uninjured arm and drew her close, while his straight upper lip closed with a little jerk. "Five minutes be hanged," he growled. "I've got her here, and here she's going to stay!"

"But," the nurse remonstrated, "she promised to go if I'd let you have five minutes alone."

"Never you mind what she promised." His arm pressed her closer. "She's my wife. She's going to do as I say." He closed his eyes wearily. "Eh, Dolly?" opening them again.

There was a little uplift of the graceful head, a rush of flame to the white cheeks, a sudden, sweet, glad light in the dark eyes. "Always, John, always!" she answered, smiling through quick tears; then, with a woman's sudden grasping of the situation, she bent her head, laying her cheek softly against his. "I was with you all night, dear," she whispered. "It was such a long, hard night! but I couldn't sleep until I knew you were safe."

"All night!" There was a great tenderness in the weak voice. "Then you must sleep now. Go at once. I'm all right, girl!" and with a smile at the anxious nurse she slipped softly from the room.

The Housewife's Letter-Box

Questions Asked

Will someone please tell me—

How to make sweet lozenges out of hoarhound, peppermint or other herbs? I would like full directions.

MRS. R. L. M., California.

How to make a nice birthday cake that will please children? MRS. J. J. C., Indiana.

How to can sweet peppers, also how to preserve watermelon-rind?

MRS. G. F. B., New York.

How to make a very delicate sponge-cake? How to make good pie-crust without milk or butter? How to remove dried ink-stains from wood, also how to candy citron?

E. K., Pennsylvania.

How to can mushrooms?

MRS. B., Arkansas.

How to make dill pickles that will not get soft?

Is there a substitute for grape-leaves? How to make mixed mustard pickles? What causes green-tomato pickles to become tough with cooking?

MRS. C. E., Washington.

A recipe for corn-starch loaf-cake and one for cocoanut drop cookies?

E. B., Ohio.

A cheap way to varnish or stain a floor around an art square?

MRS. M. H. P., New York.

How the country woman who uses an alcohol or oil stove manages the hot-water supply? Of course, a small quantity of water can be quickly heated, but often a large quantity of water is needed "without malice aforethought." I would like to try an alcohol-stove if the hot-water problem can be satisfactorily solved.

SUBSCRIBER, Georgia.

How to make castile soap? Would appreciate full directions.

MRS. O. A. B., New York.

How to make bread with a glossy finish on the top like bakers' bread?

S. E. J., North Carolina.

Full directions for crocheting a Dutch collar?

Miss D. M., Indiana.

Questions Answered

To Remove Ink-Stains, for I. C., Nevada—To remove ink-stains, use one-half teaspoonful oxalic acid and one-half teaspoonful of boiling water. When acid is dissolved, dip stained portion into the solution, leaving until the ink fades and changes color. Remove and boil the garment to remove remainder of stain and acid. This never fails on new or old stains and will also remove rust. It will not injure the garment in any way if boiled immediately, or the hands, if one is careful to wash them quickly. Some use this solution to remove fruit-stains from the hands.

MRS. E. W. F., Idaho.

Recipe for Mustard, for Mrs. S. T., Michigan—This mustard is every bit as good as the kind sold in grocery stores. Put three teaspoonfuls of ground mustard into a bowl. Pour over it enough warm water to make a stiff paste, and rub smooth. Add one-half cupful of vinegar, one tablespoonful of sugar, a pinch of salt and the beaten yolks of two eggs. Set the bowl in boiling water and stir the mixture until it thickens. Then add a lump of butter about the size of an egg. This is splendid.

Miss G. M. B., Missouri.

Here is a recipe from Mrs. A. L. M., South Dakota, which calls for flour instead of eggs: One tablespoonful of mustard and one tablespoonful of flour mixed together with a little water. Add one-half cupful of vinegar, two tablespoonfuls of sugar and a piece of butter the size of a walnut. Pour the hot vinegar over the mustard, stir all together and cook until thick enough.

Cooked Icing, for Mrs. M. M. R., North Carolina—If you will try cooking your icing with milk, using a teaspoonful of butter, it will not get dry and hard. Here is my recipe for chocolate icing for an ordinary-sized cake: One large cupful of sugar, one cake of sweet chocolate, one-third cupful of fresh milk and one teaspoonful of butter. Do not cook too stiff. Spread between cake while icing is a little warm and it will spread smoothly.

MRS. S. L., Ohio.

Another Icing Recipe—I think this recipe of mine is very simple and the icing so little trouble to make. I never use any other. Care should be taken not to use too much milk. One heaping cupful of powdered sugar, three dessertspoonfuls of milk, one teaspoonful of cocoa. If white icing is preferred, omit cocoa and use vanilla. If too thin, add more sugar. This icing requires no cooking.

MRS. A. B., New Jersey.

Sweet Cucumber Pickles, for Mrs. M. M. R., North Carolina—Pack one hundred pickles in a jar. Pour boiling water over them. When it gets cold, pour it off and sprinkle one-half pint of salt over the pickles and again pour boiling water over them. Let them stand until next day, then pour brine into a kettle and let boil. Pour it over pickles again and let stand. Continue this for eight days. On the eighth day, drain the pickles, put in weak vinegar and set on back of stove for half a day. Then draw off vinegar, put pickles in cans and pour over

Do You Need Help?

Have you been looking for a special recipe for years? Do you need any information on household matters? And do you meet with little problems in the home that you wish someone would solve for you—someone who has had a little more experience than you? Then, why not make use of YOUR OWN department and ask the questions which have been troubling you? This department has proved that the spirit of helpfulness is abroad in the land, especially among the women of the farm. That our readers have the mutual desire to help one another is evidenced by the large and prompt response we have had to the questions which are printed here monthly. There is no payment made for contributions to these columns. All answers and queries should be addressed to "The Housewife's Letter-Box," care of Farm and Fireside, Springfield, Ohio. If an immediate answer is desired, it will be sent, provided a two-cent stamp is enclosed.

them the following syrup: To one gallon of vinegar add four pounds of brown sugar and one-half ounce, each, of white mustard-seed, black pepper, berry allspice, stick cinnamon, celery-seed, mace, small onions and horseradish. Pour boiling syrup over the pickles and let stand. This may seem like work, but I have such splendid success with this recipe and my sweet pickles are as good as any you can buy. MRS. M. C. S., Ohio.

Stuffed Sweet Peppers, for Mrs. J. B. H., Tennessee—One dozen sweet peppers. Let stand in cold water thirty minutes. Cut off tops, take out all the seeds. For the filling, take any kind of cold meat and chop fine, one cupful of cold rice and one cupful of potatoes, also other cold left-over vegetables chopped fine, and salt and pepper to taste. Stuff the peppers with this mixture, place them in a baking-pan with a half-cupful of water and bake half an hour. Serve hot.

MRS. F. C., California.

Mrs. E. G., of New York, sends the following recipe: Cut off the top of each pepper, remove seeds and parboil fifteen minutes. Fill peppers with equal parts of finely chopped cold chicken or veal and softened bread-crumbs, seasoned with onion juice, salt and pepper.

Mrs. J. N. G., of Arizona, stuffs her peppers with two teaspoonfuls of ground raw beef, one teaspoonful of cooked rice, two or three tomatoes chopped (or canned tomatoes may be used), a little chopped onion, to suit taste, pepper and salt. The filling that is left over she puts around the peppers in the baking-dish, and on the top of the peppers she places a few slices of tomatoes and bacon, and cooks from one and one-half to two hours.

To Cook Garden Huckleberries, for Mrs. T. A. M., Michigan—Cook the berries as you would any other fruit and add enough lemons and sugar to make them palatable. Vinegar and sugar are also good, as well as rhubarb or any acid fruit. But don't forget sugar. If cooked alone, they are tasteless. After getting accustomed to cooking and combining the berries with other fruits, you will soon find many ways to make them edible. Six years ago I raised some plants from seed sown in a hotbed. I set out two dozen and they grew very large. The plants were three feet high and spread out like tomato-plants, only they stood upright. We had from five to eight bushels of berries. They grew in bunches from ten to thirty berries in a bunch, and each berry was as large as a medium-sized cranberry. I think the ones that you grow must be the common "wild nightshade," for the ones I raised did not trail on the ground and the berries grew on top of the plants. I think that they are not a very valuable addition to any garden, especially in Michigan, where one can grow any or all kinds of nicer fruit. Here, in northern Minnesota, we cannot raise apples, pears, peaches, quinces, cherries, etc., so we are glad to substitute almost anything that will grow here. MRS. R. C., Minnesota.

To Can Strawberries Whole, for Mrs. S. T., Wisconsin—Clean the fruit carefully and prepare for canning by making a syrup of granulated sugar. Make one quart of good, thick syrup, not waxy, and drop in one quart of berries, and boil briskly until they become soft. Put into jars and seal tightly. Stand on lids for one week; then put away, standing the jars upright. The berries will mix through the syrup and look beautifully.

MRS. E. E. J., Indiana.

Miss E. R., of Ohio, recommends the following recipe for canning strawberries whole: To every quart jar allow one and one-half quarts of berries, one cupful of sugar and one cupful of water. Cook for fully twenty minutes after they commence to boil. Put in jars and seal. The berries will remain whole and not come to the top of the jar.

Grape Wine, for Mrs. S. T., Wisconsin—One hundred pounds of grapes, five gallons of boiling water. Mash well with potato-masher. Strain through jelly-bag. To every gallon of Clinton grapes use three and one-half pounds of sugar, but for sour grapes use four and one-half pounds. Fill your keg or jars and stand in a cool place. Keep on hand a little sweetened water, so that when it works over, a little can be added to keep keg full all the time. Melt the sugar in hot water. When done working, put in the bung. This is genuine. W. K., Canada.

Government Whitewash—Take one-half bushel of quicklime and dissolve it in boiling water. Cover it as soon as the water is added. When dissolved, strain it and add a

peck of salt. Then dissolve three pounds of ground rice in warm water, having previously boiled the rice to a thin paste. Put in half a pound of Spanish whiting. Dissolve in warm water a pound of clean glue and put that in. Mix the whole well together, cover up and let it stand for several days. When needed, reheat and apply hot. Apply it to inside of stables, basements, kennels, poultry-houses and outbuildings, which you do not desire to paint. It will resist the action of the weather for several months. It is claimed to be the best white-wash known. It is used by the United States government about barracks, forts, etc.

MRS. H. F. E., Colorado.

Butter-Scotch, for M. S. W., Pennsylvania—Boil together one cupful of sugar, one-half cupful of molasses, one-half cupful of butter, two tablespoonfuls of boiling water and one tablespoonful of vinegar. Cook until it becomes brittle when allowed to drop from a spoon. Then pour it into buttered pie-pans or plates, and before it cools mark off into squares with a knife dipped in water to prevent sticking. If liked, a little vanilla extract or cinnamon may be added after removing the candy from the fire.

MRS. J. J. C., Indiana.

Feather Cake, for M. U. G., Florida—The whites of three eggs, one cupful of white sugar, one-fourth cupful of butter, one-half cupful of sweet milk, three cupfuls of flour (add a little more if necessary), two teaspoonfuls of baking-powder, one teaspoonful of vanilla. Cream the butter and sugar together, add the milk and two cupfuls of the flour, beat the whites of the eggs very stiff and add them; now sift baking-powder with the remaining cupful of flour three times, then add the flavoring. Bake in a moderate oven. This is very nice if made properly.

MRS. W. D. H., Louisiana.

Another Feather Cake Recipe, from Mrs. H. F. E., Colorado—One-half cupful of butter, two cupfuls of sugar, one cupful of sweet milk, three cupfuls of flour, three eggs, one-half teaspoonful of soda and two teaspoonfuls of cream of tartar. Cream butter and sugar together and whip it until it is a white cream sauce. Then add the milk in which the soda has been dissolved and beaten yolks. Next add the flour sifted thoroughly with the cream of tartar, then the whites of the eggs and flavor to suit taste. I use pure lemon extract. Bake in jelly-tins in a quick oven. Use any filling desired. This recipe has been tested.

In July 10th, the recipe for hulling corn with soda should have read one tablespoonful of soda, instead of one teaspoonful. Many thanks to Mrs. M. E. M. for calling out attention to the error.



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Ideas for Entertaining

Suggestions That Will Appeal to Every Girl

Under the Harvest Moon

By Alice M. Ashton

HERE is no more delightful time for the country hostess to entertain than during those evenings glorified by the harvest moon. The heaviest of the farm work is over for the year. There is an abundance of delicacies for almost any variety of refreshments, while Nature is lavish in her offerings of beautiful decorations.

A Harvest Supper

One girl, who had long wished to entertain some of her town school friends with some of her country neighbors, hit upon a happy idea for a Harvest Supper. Invitations were written upon folders of yellow paper cut and marked to represent pumpkins.

The guests gathered upon the piazza at seven o'clock. In one corner was a tent of corn-stalks lighted by Jack-o'-lanterns, where the hostess, in gay kimono and mask, told fortunes to each arrival; the fortunes had been carefully prepared beforehand, and caused much merriment.

At eight o'clock supper was announced. The long dining-room was prettily decorated with autumn leaves. But the table presented a very strange appearance to the mystified guests, particularly as the hostess began pouring the tea and desired the guests to "help themselves," as there were no waitresses. The centerpiece was a huge pumpkin and a squash, surrounded by a tempting array of such small fruits as apples, grapes and pears. Among the autumn leaves, with which the table was strewn, various turnips were scattered.

At each place there was a salad of curly lettuce-leaves with two hard-boiled eggs; a tiny yellow pumpkin lay on a circle of oak-leaves; another tiny plate held a fine red apple polished until it reflected the light of the candles in the old brass and crystal candlesticks; and on still another was a huge ripe tomato.

The Guests are Surprised

As there was nothing else upon the table, the guests very naturally hesitated in wonderment. At last one of the girls, in attempting to lift her pumpkin by the stem, found that the top had been cut off to form a lid and that the interior was filled with delicious sandwiches. Amid much merriment further investigation discovered that the tomatoes were filled with cold, sliced ham with tomato sauce; that the eggs strangely enough contained cottage cheese, and that the apples were filled with creamed potatoes. The turnips were found to contain various pickles, jellies and preserves. The last course consisted of tiny melons filled with vanilla ice-cream, with cakes from the big pumpkin, nuts from the squash, and the small fruits of the centerpiece. This all represented considerable work, but almost no extra expense, and was pronounced the most delightful party of the season.

A Ghost Dance

This frolic requires but little preparation on the part of the hostess. Word the invitations quaintly:

Come to a Ghost Dance in Huyler's cornfield at eight on Wednesday evening. None but ghosts admitted.

Everyone who does not take the hint and arrive in mask and winding-sheet should be provided with these by the hostess.

Clear a space in the center of the field and arrange flat stones for a fireplace. Light the field with lanterns and Jack-o'-lanterns suspended on poles and convenient fence-stakes. Procure as many balls of stout cotton cord as there are guests and arrange them cobweb fashion over the field. Each guest is given the end of a cord to wind; at the end they must bring what they find to the fireplace. Some will find wood, others bunches of corn for the roasting, others huge pumpkins tied with red tape containing sandwiches and doughnuts and cheese. There will also be pails of cider, a jar of butter, salt in plenty, a bag of nuts, another of potatoes and yet another of apples.

By the Light of the Fire

When the fire is lighted, the corn and potatoes roasting and the big kettle of water heating for the coffee, the ghostly hostess should pass a big white basket, from which each one draws a card. Upon the card is written some stunt which the holder must perform. As each person is striving to conceal his identity, this proves exceedingly funny.

To the music of a violin or other stringed instrument, dance the Virginia Reel and other old-time dances. Just before the supper is ready have ladies and gentlemen line up, facing each other. A lady then raises her hand; the first gentle-

man correctly guessing whose hand it is must escort her to supper. The men, of course, are blindfolded. Supper is eaten, gipsy fashion, on improvised seats without tables, by the light of the fire and the moon.

An Old Fashioned Husking Bee

One young lady, after listening to her grandmother's fascinating accounts of the husking bees of her youth, determined to have one, also. Both girls and boys were invited for afternoon and evening, and appeared about three o'clock in their gingham frocks and working clothes. While the boys husked corn on the big barn floor, the girls were busy in the big old-fashioned kitchen, baking chickens and potatoes, setting and decorating the long tables and, later, spreading sandwiches, cutting cakes and making coffee.

At seven the corn was finished, the boys "washed up" and the supper served. Everything was placed on the table in the good old-time manner and no one needed to wait to do the serving.

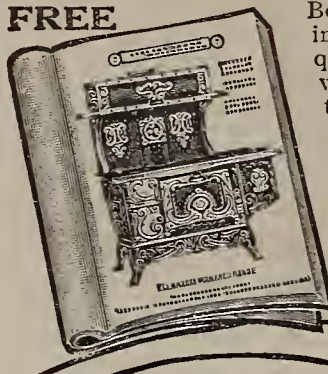
After the barn floor had been cleared of the corn, they danced and played games until midnight, when, having eaten a lunch of doughnuts and new cider, they trooped merrily homeward through the moonlight.

Entertaining Town Friends

So often the country girl or boy feels that they have no way of entertaining their town friends. Nothing pleases those same young people so much as the simple frolics that come easiest for the country young folks to give. A straw-ride on some fine night in the big hay-wagon is a pleasure that almost any country girl or boy can give their school friends, and nothing is jollier than a frolic around the old-fashioned fireplace in some farmhouse.

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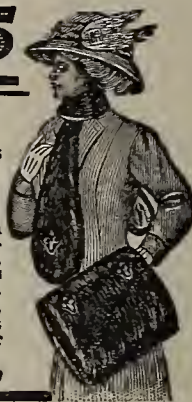
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We bought over \$100,000.00 worth of high grade furs made up in latest styles, which we offer at half price. An opportunity such as this seldom occurs.

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THROUGH THESE BOOKS WE OFFER YOU THE OPPORTUNITY TO SAVE 20 PER CENT TO 50 PER CENT OF THE MONEY YOU MUST SPEND IF YOU TRADE ELSEWHERE.

We guarantee every article we sell to give you full satisfaction. Without dispute, without question, we will take it back at our own expense, if it does not, and refund your money or make any fair exchange or adjustment.

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19th and Campbell Sts.
KANSAS CITY

Send Coupon below to Nearer Address

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You will enjoy this book. It is crowded from cover to cover with attractive offers that will delight you. A couple of pretty chairs or an attractive, substantial couch will make a home much more comfortable.

Whatever you need, from the kitchen table up to the furniture for the guest chamber, you will find just what you want in the pages of this Furniture Book. You have read of our economical business methods. They enable us to sell you furniture at prices that often mean a saving to you of 50 per cent on what you had intended to pay to the retail dealer. Your copy is waiting for you. Let us send it today. Ask for book number 7.

Carpets and Rugs at Factory Prices
A new carpet or perhaps a rug will "brighten up" that room you think does not look quite inviting or cozy enough. Don't imagine you can't afford one. Our carpet and rug catalogue, book No. 15 contains some price surprises for you.

SPEND THIS MUCH IN THE RIGHT PLACE AND IT WILL BRING YOU AS MUCH AS THIS WOULD IN THE WRONG MARKET

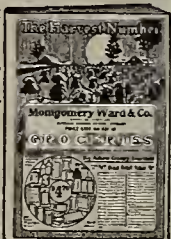
A Saving on Clothing

A well dressed man or woman makes a splendid impression everywhere. Good clothes are a recommendation in themselves. "Clothes do not make the man" the old saying goes, but we all know they often help a lot. It is easy to be well dressed and not expensive either. Let our new clothing book show you how to dress well at a small expense. It brings right into your home a wonderful collection of clothes, weaves, patterns, and colors from which to select.

Every style is new, nobby and up-to-date. Remember it costs you nothing to get this book. Better have us mail you one today. The women's book is No. 30, the men's book is No. 33.

HERE IS A BOOK THAT WILL

Save 1-2 of Your GROCERY Money



The Grocery List is a mighty interesting little catalogue. You're going to spread it out under the lamp and turn its pages and just delight in comparing the money-saving prices it quotes, with the high prices that small dealers ask. Before you know it you'll have your pencil out figuring up how many Christmas presents you can buy with the money you saved on your grocery bills. But the thing that's going to give you real satisfaction is this: For less money you are getting better quality and more food! Then, of course, you know that everything is so clean and pure and absolutely reliable.

The number of the Grocery Book is 11. When we receive your request we will put your name on our mailing list to receive the new Grocery List every two months.

Save Enough on Winter Farm Necessities to Clothe the Family

A feed cooker—a good one—that's what you need this winter. Perhaps you stand more in need of a tank heater or an incubator or a brooder or some other winter farm necessity.

Whatever you need, we have it. We carry a big variety of every farm necessity. The prices on these are of course the very lowest just as they are on all the rest of our merchandise. Send for book 8.

Check the Book You Want

Let us show you, free of all cost, how you can save money on everything you buy to eat or wear or use in any way.

Send Coupon to Nearer Address

Montgomery Ward & Co.

19th and Campbell Sts.
KANSAS CITY

Chicago Avenue Bridge
CHICAGO

Please send to my address below the books I have checked absolutely free of cost.

- | | | |
|-------------------|----------------------------|-----------------------------------|
| 1 Paints | 17 Baby Carriages | 23 Women's Tailored Suits |
| 2 Pianos | 18 Men's Fur Coats | 29 Circular and Drag Saws |
| 3 Organs | 19 Sewing Machines | 30 Women's Fashion Book |
| 4 Trunks | 20 Gasoline Engines | 31 Rain Coats, Rubber Coats, etc. |
| 5 Roofing | 21 Cream Separators | 32 Tombstones and Monuments |
| 6 Vehicles | 22 Building Material | 33 Men's Clothing |
| 7 Furniture | 23 Stoves & Ranges | 34 Women's Furs |
| 8 Incubators | 24 Underwear Samples | 35 Dry Goods |
| 9 Wall Paper | 25 Automobile Supplies | 36 Muslim Underwear |
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| 12 Feed Cookers | | |
| 13 Tank Heaters | | |
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156

This Book is for Mothers

It's the "Baby Book." There are some of the daintiest, prettiest little dresses and caps in it you ever saw. Then there are snug, warm "nighties" and stockings—and everything else the baby needs. Beds and cribs, go-carts, high chairs, toys, rattles—well, you'll just be delighted when you see it.

And everything is so reasonable! Without even knowing it you will have bought everything for baby and have a neat sum left—maybe enough to buy a rug or a pair of shoes, or to "put away for a rainy day."

The "Baby Book" is a beautiful book. You'll like it. The number is 27.

Men's Fur Coats

When the mercury in the thermometer plays tag with the zero mark then is the time that the man in "the big fur coat" is the envy of all eyes. Nothing takes the place of a good fur coat for protection from cold, stormy weather.

There's one in our new Fur Coat Catalogue (Book No. 18) for you.

Women's Furs

Dressy, silky, soft furs—the kind every woman admires—are fully shown in catalogue No. 34.

Our forty years' experience in expert fur buying is at your service.

Sewing Machines

A reliable, smooth running sewing machine will soon save its cost in time, strength and labor saved.

Our years of experience enables us to offer you by far the best machines on the market at the prices quoted.

The sewing machine book is No. 19.

Raincoats and Rubbercoats

Rainy weather has no terrors for you if you have a good raincoat. You rather enjoy splashing around in the wet, when you are warm and dry. Damp—rainy—snowy weather will soon be here. Better get your raincoat now and be ready for it.

Send for book No. 31.

Underwear Samples

A suit of soft, warm, well fitting underwear will be mighty fine to jump into when those cold, frosty mornings come. Our underwear sample book shows you one of the finest and most complete lines of knitted underwear that you ever saw.

Write today for book No. 24.

Pianos and Organs

Purity of tone and best quality of materials are the distinguishing marks of our pianos and organs. Cost, plus one small profit is all we ask. See catalogue No. 2 for pianos; No. 3 for organs.

35/2

FARM AND FIRESIDE

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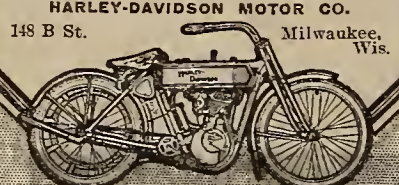


An Important Announcement on Page Twenty-Seven

HARLEY-DAVIDSON
MOTORCYCLES

are the greatest pleasure givers and time and money savers the farmer ever knew. They travel 10 miles for a cent and cost nothing when idle. The Harley-Davidson stock machine has won more competitive contests than any other stock machine made. Send for illustrated booklet. The "Harley-Davidson on the farm."

HARLEY-DAVIDSON MOTOR CO.
148 B St. Milwaukee, Wis.



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Get the genuine EMPIRE big wire fence, direct, at wholesale. Save dealer's profits.

Big Factory, Big Sales, 23 Styles

No traveling salesmen, small expense, prices low. Everything guaranteed. Free samples by mail. Prices of leading styles freight prepaid to all points north of the Ohio and east of the Mississippi River.

Wires	Inches high	Medium Weight	Extra heavy (all No. 9)
9	39	22c per rod	35c per rod
10	47	26c per rod	40c per rod
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Special rates beyond this territory.

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The Woman's World is, without doubt, the best magazine ever printed for the money; in fact, is superior to many magazines selling for more than this. It is not only attractive in appearance, but its columns are full of the choicest literature that money can buy. The contents of the Woman's World are selected with a view of entertaining and educating its readers. It is a big value at a low price. Every farmer in the country should take this opportunity of obtaining the Woman's World without cost in connection with FARM AND FIRESIDE.

You can get the leading medium-priced woman's publication for two whole years without cost by extending your own subscription to FARM AND FIRESIDE one year.

Farm and Fireside, one year
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Both for 50 cents

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Great strength and capacity; all sizes; also gasoline engines, steam engines, saw-mills, threshers. Catalog free.


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QUAKER CITY MILLS Standard for 44 years

Sent on ten days' Free trial. Freight paid. 23 styles for grinding Corn and Cob, Feed and Table Meal. Shuck and Kaffir Corn. Engines, Feed Cutters, Corn Shellers, etc. Send for Catalog and low prices.

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Jack Wood did it! He writes—"Hurry up 100 more—sold first lot in 2 days—best seller I ever saw." Hundreds of agents making money—\$5.00 worth of tools for the price of one. Drop forged from finest steel. Astonishing low price to agents—1,200 ordered by one man. Write at once. Don't delay. Experience unnecessary. Sample free to workers.

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With the Editor

THE consumer and producer must be brought closer together. We waste too much in passing our produce from hand to hand. Living is high in the city and poor in the country because of this. I have spoken of the public markets of Springfield, Ohio, and Madison, Wisconsin, as examples of successful and unsuccessful methods of cutting out the middlemen. And now I want to tell of two cities which I have just visited in which I saw the passage from the marketless state to the condition of cities supplied with markets. These are the two largest cities of Iowa, Des Moines and Sioux City.

Neither has had a public market until this last summer. Des Moines has nearly or quite a hundred thousand people, and Sioux City about half that. Both are fine, lively, hustling towns, surrounded by ideal garden lands. In Des Moines especially there has been great complaint of the high cost of living. The commercial organizations finally saw that unless working people could live cheaply, wages would have to go up, and manufacturing would suffer.

Do you see the situation? It was a struggle not so much between the middleman and the people on both sides of him, as between a badly organized system of food-supply and the general prosperity of the town.

They had no market-house in either city. In Des Moines a little square back of the City Hall was available, in Sioux City nothing but the open streets. In each case, the city commissions—they have the commission form of government—decided to use the streets.

Each scored a gratifying success. I was in Des Moines on the tenth market-day, and it was wonderful to note the change. I found the farmers all pleased with the result. One man had crabapples which he was selling for forty cents a half-bushel basket. He told me that in former years he could never get from the grocers more than twenty-five cents a bushel and often let them rot on the ground. Green corn was selling for ten cents a dozen, whereas, before the market started, the grocers paid only seven or eight cents. Similar results were reported on almost every sort of truck-farm produce.

I watched the loads in wagons gradually dwindling to a small heap against the tailboard, and finally the empty wagon pulled out for home—cleaned up.

And the consumers, rich and poor, pulled out for home, too—loaded down. I watched a woman shopping. She had a little boy with her, drawing a small cart. The child was dressed in two garments, and I don't believe there was two dollars' worth of clothes on both mother and son. She was a Jewess or an Italian or a Hun—evidently the wife of some poor immigrant not yet adjusted to our life, or striving dreadfully hard to save, or out of work. It took her ten minutes to make her first purchase—I think she felt the breast and hefted every chicken in the market—and once or twice went back to get a good one and found it gone. Finally she went away, with a fine Plymouth Rock lying in the cart like a French nobleman in a tumbril on his way to the guillotine during the Reign of Terror. She had a lot of onions, two heads of cabbage, some lettuce, a few potatoes, some beans and other staples. And on the top of the load were two fine cantaloups. I could imagine the eagerness with which that small boy would approach the table laden with these esculents—many of them out of the reach of the family until the public market opened. It rather warmed my heart.

An esteemed reader of FARM AND FIRESIDE, Mr. B. F. Hamilton of Delaware, writes of the old Wilmington market very interestingly. He says:

The street markets of Wilmington, Delaware, are often watched with wonder; and so it occurred to me that a short description of them might prove interesting to the readers of FARM AND FIRESIDE.

They are situated on two streets and extend from Second to Tenth streets, making sixteen squares. The curb is divided into spaces of seven feet, making room for nearly seven hundred market-wagons. Recently our clerk of the market told me that every space was rented. We pay \$4.50 for a year's rent. Our market days are Wednesdays and Saturdays—rain or shine, summer and winter.

Early in the morning, often before daylight, hundreds of wagons, loaded with all kinds of produce, will be on their way to the city, some of them coming thirty or forty miles. When they reach the city, they back up to their rented space on the curb, put their horses in the stable, set up their bench and are ready for business. From that time till two o'clock people with their baskets will be going up and down the streets, looking for their supplies. Most of them purchase just enough to last till the next market-day, as they know they can get a fresh supply from the farms and gardens. It would be quite an exceptional case if a person did not find what was wanted.

A short time ago a lady and gentleman from Iowa stopped at our bench and expressed their surprise at the wonderful scene. They had never seen anything of the kind. We were selling all kinds of vegetables and flower-plants, and they were surprised at the demand for them. They enjoyed looking at our flower-market on Sixth Street. Another gentleman said it was as good as a circus to see the markets. About two o'clock the market is over and the teams are soon on their way homeward.

The cities which are starting may read this with good cheer. Some time they, too, will have complete markets. At present they have smaller but very effective markets at no cost to anyone. On the tenth market-day in Des Moines there were over two hundred teams on the street—the little square was overflowed, and the line had extended up and down and around for blocks. In Sioux City there were less than seventy-five after four weeks or so of experience—but in Des Moines the regular hucksters are allowed on the market, and in Sioux City it is reserved for the farmers alone. I don't know which is the best. In Des Moines every seller must display a card telling what he is—a blue one with "HUCKSTER" on it if that is his station in life, and "GARDENER" if he raises his own truck. Personally, I think the hucksters help to make the market, and I think the Des Moines plan of making everyone sail—and make sales—under his own colors is a good one. They arrested one huckster three times the same day for putting up a gardener's card.

Both markets began very small—with only two to five teams. Both are growing. Each has brought prices from ten to one hundred per cent. higher to the farmers for their produce. And both cities are planning market-houses. I hope they won't do as Madison did—put it out of town.

The slogan must be "get together!" Get together in coöperative organizations. Get together in public markets. The hunger of the world is a great fire which we farmers must furnish the water each day to quench. We should not longer be content with the old-fashioned "fire line" in which pails were passed from hand to hand, slopping fifty per cent. out in delivery. We must have the unbroken hose of the coöperative organization and the public market—and the pressure of public opinion behind it.

Robert L. Grier

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ABOUT ADVERTISING

FARM AND FIRESIDE does not print advertisements generally known as "readers" in its editorial or news columns.

Mention FARM AND FIRESIDE when you write to our advertisers, and we guarantee you fair and square treatment. Of course we do not undertake to adjust petty differences between subscribers and honest advertisers, but if any advertiser in this paper should defraud a subscriber, we stand ready to make good the loss incurred, provided we are notified within thirty days after the transaction.

FARM AND FIRESIDE is published on the 10th and 25th of each month. Copy for advertisements should be received twenty-five days in advance of publication date. \$2.00 per agate line for both editions; \$1.00 per agate line for the eastern or western edition singly. Eight words to the line, fourteen lines to the inch. Width of columns 2 1/2 inches, length of columns two hundred lines. 5% discount for cash with order. Three lines is smallest space accepted.



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in the square below indicates that you are an old subscriber and that your subscription expires this month. Renew by accepting one of our offers before they are withdrawn.



SUBSCRIPTION PRICE

One Year (24 numbers) 50 cents
Canadian, 1 Year . . . 75 cents

Subscriptions and all editorial letters should be sent to the offices at Springfield, Ohio, and letters for the Editor should be marked "Editor."

Silver, when sent through the mails, should be carefully wrapped in cloth or strong paper so as not to wear a hole through the envelope.

Vol. XXXV. No. 2

Springfield, Ohio, October 25, 1911

PUBLISHED
SEMI-MONTHLY

Before you state your proposition some men are against it.

A man is known by the places where his horse habitually stops.

One smile is worth more than a dozen frowns and leaves the face in better shape.

The soil has respect for muscle and yields to its demand, but it has more for brains, and yields an ever-increasing harvest when brawn is supplemented with intellect.

The Motor-Car Murderer

ANY man who has a machine in which he approaches a street crossing at a speed with which human speed is incomparable is running a deadly machine. Any man running a machine that is not under instant control at street crossings is guilty of malice against the community." Such is the language of a Pennsylvania judge in submitting to a jury a case in which the driver of a motor-car was on trial for murder in the killing of a person on the street.

The use of the word "malice" is noteworthy. If a man kills another unintentionally, the act is not murder. The driver of the motor-car did not intend to kill the victim of his machine, it may be said. Yet the act is so reckless of the lives of others that the law holds him guilty of malicious killing for all that, and, if guilty, his crime is wilful murder.

The rule is just and right. If a man stands at a window and fires across the block into a crowded shop, he is a murderer, though he aimed at no one in particular, and meant to kill no one. Recklessness of this sort is malice in law. So with the case of the hurling of a motor-car along the street.

The rule, as we see it, is that the driver of a motor-car, even on country roads, must so have his car under control that no person can possibly get from any cover—tree, grass, weeds or side-road—into his path before he can stop.

Breeding for Quality

BREEDERS of fowls, cattle or swine may breed for any quality they desire, but they cannot breed for one without sacrificing others. If there is a test for color, form, size and yield are sure to suffer. The breeder who is obliged to mate fowls for the penciling of the feathers will fail to propagate the layers or the table fowls which he might breed. The pit games are bred for fighting—and they are of all colors. The shorthorns are bred for beef—and they are of all colors. A test in color would result in cocks that would be licked and beeves that would not dress out the present percentage. It costs quality to breed a belt of white around the body, or a peculiar pattern in the hackle. We should be all the better off if we had a breed of fowls which had been bred for a thousand generations for laying only—and let the color go hang. Same with table fowls. The Australians are beating us in laying breeds because they have had laying contests longer. One of these days we shall forget about color test, except for fancy and pet stock. It would be worth while to breed a strain of Shetland ponies with green ears, blue tails and Scotch-plaid bodies—because the shelties are pets. The dachshund has been bred, as a small boy expressed it, "a dog and a half long and half a dog high"—but the dachshund is worth nothing except to be long and low and rakish. The bacon type of dog wouldn't do for anything except a pet.

One can breed anything if he will pay the price. Color in farm stock costs too much in other qualities. Leave it to the fanciers.

Cooperative Meat-Packing

ONE would think the live-stock interests of the nation strong enough to slaughter and pack their own animals if they really desired—and so they probably are. Stock-raisers are among the most well-to-do of farmers. Being well-to-do, they are perhaps the more capable of being whipsawed by the big buyers. They can stand it better, for instance, than could the citrus-fruit men of California the whipsawing they endured before they learned to coöperate. In the orange-groves it was a case of coöperate or "bust." Coöperative packing is a success in Denmark and England and elsewhere—where the farmers have learned to coöperate. American farmers may learn to coöperate by coöperating. After they have got used to getting together in less complex ways than the operation of a packing-plant, they may be ready to attack the Beef Trust. Maybe before—but creeping is regarded as a good thing to try before walking. The depressing phase of the situation is that so many refuse even to creep.

The Bi-Weekly Farm and Fireside

THIS is the last Semi-Monthly issue of FARM AND FIRESIDE. All FARM AND FIRESIDE readers will surely be pleased to learn that the publishers have decided to issue this paper Bi-Weekly. The first Bi-Weekly number will come out November 11th, and every other Saturday thereafter. This means twenty-six big issues a year instead of twenty-four. Tell your friends about this, and try to send in a club of subscriptions in token of appreciation. Every bit of friendly work of this kind is a real inspiration and help to FARM AND FIRESIDE.

When a paper is sent semi-monthly, one hardly knows when to expect it. With the Bi-Weekly FARM AND FIRESIDE it will be different. Hereafter you may expect FARM AND FIRESIDE every other Saturday as regularly as milking-time—beginning Saturday, November 11th. If a copy gets lost in the mails and does not arrive in time, a postal will bring you a fresh copy by return mail.

Smashing Cotton Prices

COTTON prices may be smashed below the margin of cost of production by the simple trick of throwing fourteen million bales on the market in three months. The growers will have the cotton, and if they want to work for nothing, the way is open. But why intelligent men should take the open way to financial distress is one of the mysteries of this unorganized agricultural world of ours. Cotton is a crop that should be marketed slowly and as needed. The needs of the market can be determined by careful study on the part of competent men. The sales can be regulated by coöperation. These things take no more intelligence than is used in most of the great businesses of the world. Farmers lack a certain intelligence—the horse sense that impels a man to give up individual liberty of action and accept leadership and the demands of the common good. So we may expect to see the "free and equal" cotton-grower giving his great and unequalled exhibition of smashing the price of his crop with a hammer made of fourteen million bales of cotton all dropped, ladies and gentlemen, on the market in the short space of three months. Later: Maybe it won't be dropped.

Big ears are a sure sign of generosity in the field of corn.

A letter to your congressman is more influential than a ballot for him.

It is a grand thing to know how to make the most of everything, but the grandest thing of all is to be able to make the most of oneself.

One argument against the annexation of Canada is the fact that it would require a larger appropriation for the annual distribution of free seeds.

Good Work

YORK COUNTY, Nebraska, is another spot in which the slogan, "Ruralize the Rural Schools," is beginning to be shouted to some effect. Alice Florer, the county superintendent, was astonished three years ago, when the work really commenced, at the things made by the children from corn and corn products—"everything from a necktie-rack to thrashing-machines and airships." The girls do wonderful work in sewing, cooking and other domestic-science work. On the first year's effort they took first premium on rural-school exhibit at the Omaha corn-show, first on village-school exhibit, first on manual training and first on county collective. One girl got a seventy-five-dollar steel range for the best loaf of corn-bread; and premiums—and enthusiasm for county-school work—were scattered all over the county.

They have a week's county short course, and always send some pupils to the state short course. There are fifty clubs in the county in which the boys study agriculture and manual training, and the girls sew and cook. The study of cookery is done at the club, and the actual cooking done at home—for the family—and samples brought to the club. Sweet times, no doubt, are experienced.

The parents say these things do the children a world of good. Of course they do. They are the beginning of the end of the isolation and backwardness of rural life, and they show what a big office the county superintendency is when filled adequately.

Fertility Futility

THE farmer who buys low-grade ready-mixed fertilizers may be what Josh Billings called a "cheerful kuss," but what does he think with? Everybody ought to know by this time that the cheapest fertilizers are the dearest. The Florida Experiment Station found that the low-grade stuff sells at forty-five per cent. more than it is worth, the medium grade twenty per cent. more and the high grade eleven per cent. more. In other words, you are stung anyhow, but stung four times as deeply with the cheap fertilizer than with the high-priced grades. Similar results have been arrived at by examination in Massachusetts, Missouri, Mississippi, Indiana, Maryland and other states. The rule applies everywhere, because the fertilizers come from the same concerns. Why be buncoed longer? If you want to apply "filler" instead of concentrated preparations—which is sometimes a perfectly proper thing to do—why not use the earth from the field? As McDonnell of the Maryland station says, "The cheapest filler is the soil in the field, and the cheapest mixing-machine is the harrow."

Doctor Wiley seems to have "come back."

Dr. Cyril G. Hopkins of the Illinois Experiment Station has given us, on Page 5 of this issue, something worth reading, worth saving and worth a fortnight's study. Does it mean anything to you?

More Methods Than One in Trapping

By David E. Allyn

With no little satisfaction FARM AND FIRESIDE introduces to readers everywhere Mr. David E. Allyn. Mr. Allyn is a practical trapper. He will be a frequent contributor to these columns and will point out features of interest to farm and home.

EDITOR.



MANY trappers seem to think one good way to trap a mink or other animal is sufficient. To this I take exception for several reasons. Not because I employ more than one way myself when trapping, but for the reason that one way, however good, cannot always be successfully employed in the many different places where the animal is to be found, and when we consider the conditions of these many places, it is easy for any trapper, even the beginner, who has any "trapper sense" at all, to see at a glance the utter impossibility of employing only one way successfully in these different places and under so many different conditions, therefore it is misleading to the young beginner to endeavor to create the impression in his mind that one way is sufficient in all places. It will make him an unsuccessful trapper from the beginning.

The mink and the fox are two of the most cunning animals and whose sense of avoiding things not common to their surroundings is so well known as to become a proverbial by-word among the trappers, and we cannot better illustrate the reason why traps should be set in different ways to make trapping profitable than to call attention to the habits of these two animals.

Every experienced fox-trapper knows that a live spring is one of the best places for putting the trap to successfully catch the fox; but they also know that such springs are not numerous enough in any one locality to make it a profitable way if that method only is resorted to, even though foxes were as numerous as flies around the bung-hole of a molasses-barrel in sorghum-making time down in Missouri. There are places to be found in the woods miles from any spring where foxes can be as successfully trapped as they can at the spring, but it requires an entirely different way of placing the trap, the decoy and the bait, and all successful fox-trappers who have "went to the woods" after the fox will bear witness to this statement. Then there is the mountain region where foxes are quite numerous. There are no springs, nor old logs, nor hollow trees—nothing but piles and piles of stone, with an occasional stunted bush or creeping vines. Neither of the ways used in the spring or in the woods can be employed here. Another way must be resorted to.

What Makes a Successful Trapper?

Consequently the trapper, if he makes a successful and profitable season's work, must use methods and ways as widely different as the trapping-grounds are different—no one way can be successfully employed, and the man who persistently advocates that "only one way" idea is not an experienced trapper, or else his operations have been confined to a very limited territory and, therefore, his knowledge is just as limited.

A better illustration of why more ways than one should be employed can best be given by calling attention to the mink. It is perhaps the greatest rover of all fur-bearing animals, and will, in one night's rambling, frequent more places of a different character than all other animals in the neighborhood combined. A mink has been known to leave its den and travel from ten to thirty miles before returning, and then come back by a different route. This habit of rambling, and their propensity for exploring and investigating every nook, crevice and corner found in its pathway, admits of more ways of when, where and how to set the trap to capture him than any other fur-bearing animal. It has an exceedingly acute sense of smell which enables it to track its prey with ease and accuracy. It is also the means of luring it to certain capture, as a trap set along its haunts and baited and decoyed with the food or scent for which it has a particular fondness is almost certain to attract him to the spot, and if the trap is



"Why does the farmer's wife ring the dinner-bell?"

properly set his capture is about as sure as is the capture of the muskrat when a trap is set in the water at the foot of their much-used slides. The idea that mink are afraid of human scent and that traps must be handled with gloves is an exploded theory, for it was only a theory—a full brother to the

"only one way" idea. Any trapper who understands when, where and how to set the traps, and the baits and decoys most pleasing to the taste and sense of smell of the mink, will catch as many, or more, by setting his traps barehanded as he will to wear gloves. A trapper may have a very successful way of trapping mink by a water method—trapping in the water. It may be the only successful way he knows of. Yet he could not employ that way to any degree of success in a large pile of stone, or on the ledge of some mountain-side, nor under a hay-stack, nor by the old tile ditch out in the middle of the farm, nor where the mink enters your hen-coop to rob you of your poultry. Each of these places requires a different way of putting the trap and the baits, and the man who starts out trapping mink with only one way to catch him will find that he is not in it. And the man who tells the beginner that one way

is sufficient is misleading in his statements, or lacking in his knowledge. Something somehow is wrong with him.

The beginner, therefore, must study the habits of the animal and find out such places as the animal frequents most in its rambling, and also the different places it inhabits—there being a wide difference between the places it frequents and the places it inhabits—and adopt ways of trapping suitable to the place in which he is putting his trap. If he can gain this knowledge from some old, experienced trapper, it may save him years of experimenting, but if he is taught that one way is sufficient, no matter how good, he will never be successful only in that one way, and his season's work will not be profitable.

For scents and baits there is nothing better than that which nature affords for all animals in both scent and bait, and if you can obtain a scent from nature itself, which comes near the scent of the animal itself, or a scent of which the animal is particularly fond, as a mink is of the scent of the muskrat or the flavor of a piece of venison, or the scent of a fresh fish, then you have a scent which has sufficient power of attraction to make its use profitable. Many times a scent can be employed to very good advantage which has no resemblance to animal scent at all, as in the case of the coon. A scent composed of certain things for which the coon has a particular fondness—even greedy fondness—can best be employed and is often better than some kind of baits.

All Scents are Not Humbugs

Now, a western trapper once asked me why should scent or "perfumery" be used. This same questioner said he caught a mink in a trap baited with venison two hundred yards from the creek, and that the mink "smelled the bait" and climbed the mountain for it. There is the whole secret in a very small nutshell, and told by himself, and if he had only paused to think a while before asking the question and reasoned out the cause of why the mink climbed the mountain because he "smelled the bait" two hundred yards away his question would have been unnecessary and his opinion that "all scents and baits are humbugs" would have been exploded.



"There is the mountain region where foxes are quite numerous"

right then and there. It was the scent of the venison which decoyed or lured that mink up the side of that mountain two hundred yards from the creek. Had there been no scent or "perfumery" to that venison the mink would never have "smelled it two hundred yards away," but when the sweet perfume of his favorite dish of meat was wafted to his nostrils on the mountain breeze, he had a hankering desire to go right after it—and went and was caught by a man who says "all scents are humbugs." Such men are "buggy" themselves.

There is a peculiar scent to fresh venison which is very attractive to all wild animals and especially so to all members of the weasel family, to which belong the marten and the mink, and when I am trapping where I can obtain venison I use no other scent or bait. A trap baited with a piece of deer meat, if it is fresh, will attract a mink or marten a half mile if the wind is favorable, hence the reason that mink went up the mountain when he "smelled the bait two hundred yards away." But when trapping in sections of the country where there are no deer, I use what I know to be the next best thing for scent and bait, which is sometimes a meat bait and at other times only an animal oil combined with the peculiar scent of the animal itself.

The Scent Tells a Story

Again, why should scent be used? For an attraction, of course. Why does the farmer's wife ring the dinner-bell? To let her husband know that there is something on the table to eat. This scent tells the same story to the mink or fox that the dinner-bell does to the farmer. If a mink is hungry and is searching for food and gets a whiff of the scent of a muskrat, he is going to see where that scent comes from. It may be the musk of a muskrat some trapper has employed to decoy the mink to his trap. For the sake of illustration we will admit that it is. The mink, being very fond of muskrat, pauses the moment he gets a whiff of this scent (when he hears the dinner-bell ring), and being hungry he follows it up. When he gets to the trap, he finds that a piece of rabbit or fresh fish has been used for bait, and the scent of the muskrat placed near-by as a decoy. Well, he likes to eat rabbit and is also fond of fish, and being hungry sits down to the table and begins to eat, when—snap! Another mink-skin soon adorns the trapper's lodge. Had the trapper simply baited his trap with a piece of rabbit or fish and used no decoy with a far-reaching scent—and one of which the mink was particu-

larly fond—the mink would not have "smelled it" so far away, neither would the attraction been so great, because it did not come from something for which he had a particular fondness and he would not have had his appetite whetted by the scent of that which he liked, just like a hungry trapper's appetite is whetted when he gets a whiff of the aroma of "coffee like mother used to make."

Now there is another thing I wish to call attention to, and that is baits. I will state that in all my experience, in all sections of the Middle West, and especially in the great Mississippi Valley, from the Sunken Lands in Arkansas to the north shores of the Lake of the Woods, in Canada, I have invariably found meat baits the best when fresh, and this range of territory covers a variation of climate in which many changes are represented. If baits were strictly fresh, they were much better. I have caught animals with old or stale bait, but only after considerable "coaxing," catching ten animals with bait strictly fresh to one with old or stale bait. Now I figure it out this way. The fresh bait has all the savory juices so essential to the peculiar flavor so well liked by all carnivorous animals, while these juices dry up or evaporate more or less as the bait becomes old and dry, and consequently contains less of the flavor so attractive to the animal. If the weather is sufficiently warm to cause the bait, if left several days without renewing, as is sometimes the case, to spoil, or become tainted, sometimes badly so, the peculiar flavor is destroyed and becomes a stench, or stink. Animals do not like this any more than a human being does.

To prove the above statement, take a fresh fish and one so spoiled and tainted that you have to "handle it with gloves on," while it "smells to heaven," and set them before the house-cat. How quickly the cat will select the fresh one. Set them before a tame coon, mink or otter, and the result is the same. You say these are tame animals or wild animals in captivity. Very well, here is another illustration, which, by the way, is one of my many ways of catching mink and coon. Go along the creek, river or pond, where mink or coon frequent and find shallow, rippling water, and near the bank where you see "sign" of these animals build a semi-circular pen in the bed of the creek, leaving the entrance toward the bank.

Fresh Bait Must Be Used

Set your trap just within the entrance and get a couple of small live fish and string them on a wire or cord and secure them beyond the trap a few inches, and see if you don't catch the first mink or coon that comes along. Now get some old decayed, stinking fish and bait the same pen with it in the same manner, and see how long it will remain there before anything tackles it. It will be there when you quit trapping if the action of the water does not carry it away a little at a time.

How often, when we are trapping, we see old dead fish lying along the edge of the shores of the streams where animals have played all around them. Catch a live fish and kill it and place it near the edge of the water a short distance from the old dead one, and see if some animal does not take it away before morning. Would they take the fresh one if they liked the old, stale and stinking fish best? Use the fresh carcass of a muskrat for mink bait, and see if you don't catch the mink inside of two days if he comes along. Take an old, decayed, stinking muskrat, and bait your trap with it, and see if the mink does not pass right on when he comes in the vicinity of your trap. He gets very "shy" about that time and you begin to wonder why mink are so hard to catch this season, and then you begin to think they are scarce in your part of the country.

Some eastern writers (I do not know if they are trappers or not, but think they are not) put their baits



"This habit of rambling"

in running water twenty-four hours to kill the scent of themselves, supposed to be left on the carcass while skinning or in handling, and then take a stick or pitchfork to place the bait in position near the trap. Now, I think this is wrong. The meat becomes water-soaked and is more liable to taint quicker, besides the action of the water during the twenty-four hours drives out the juices or destroys them until the peculiar flavor which animals love so well is gone, and leaves nothing but the cold, clammy, water-soaked meat. Take a piece of this meat and a piece of the same kind of flesh just cut from the carcass of a fresh-caught animal and set them before your cat or tame mink, fox or coon, and see if they do not leave the water-soaked bait until they eat the fresh piece, nine times out of ten. When wild animals kill something for their dinner, they eat it while it is fresh. Everyone will recall this fact.

[TO BE CONTINUED]

Doubling the Yield per Acre

By Cyril G. Hopkins

BY SOIL-ENRICHMENT alone the average crop-yields of the United States could be more than doubled. That is to say, with the average seed now used, with the common amount and methods of tillage or cultivation, and with the normal sunshine and rainfall, our crop-yields could be made more than twice their present average by proper and profitable soil-enrichment.

I realize that, in this age of common and enormous exaggeration, the above statement is likely to be heavily discounted by those who fail to discriminate between plausible, exalted error and remarkable, neglected truth, and who fail to make any adequate examination of the abundant and easily available proof.

First, let it be understood and always kept in mind that food for plants is just as essential as food for animals. Crops are not made out of nothing, but they consist of ten definite chemical elements, two of which (carbon and oxygen) are taken from the air, one (hydrogen) from water and seven from the soil (nitrogen, phosphorus, calcium, magnesium, potassium, iron and sulphur). By means of legume crops nitrogen may be, and should be, secured in abundance from the inexhaustible supply in the air; calcium is contained in limestone, which is abundant in almost every state; while phosphorus is relatively rare and it must be purchased and applied to the land. The other seven elements are normally provided by nature in lavish abundance. This is especially true of carbon, oxygen, hydrogen, iron and potassium.

The common or normal level or undulating loam, clay loam, and silt loam soils of the humid sections of the United States require for their marked improvement only three materials: limestone, phosphorus and nitrogenous organic matter; limestone to correct or prevent soil-acidity and to supply calcium; phosphorus to enrich the soil in that element which is usually deficient in the most common soils of the country, and organic matter to supply nitrogen, to maintain good tilth, to improve the absorbent and water-holding power of the soil, to protect the soil against surface washing and from running together, and to liberate essential elements of plant-food from the insoluble compounds contained in, or applied to, the soil.

The "Complete" Fertilizer

But, instead of acquiring some definite knowledge of the composition of his soil, of the requirements of his crops and of the most economical forms, sources and amounts of the essential elements really needed for the positive and profitable improvement of his acre-yields, it must be admitted that the "average" farmer who makes use of "commercial fertilizers" applies what the fertilizer agent advises him to buy; namely, a so-called "complete" fertilizer, usually guaranteed to contain 2 per cent. of ammonia, 8 per cent. of falsely so-called "phosphoric acid" and 2 per cent. of potash; or, in actual plant-food elements, about 3 pounds of nitrogen, 7 pounds of phosphorus and 3 pounds of potassium in a 200-pound bag of the fertilizer, the amount usually applied per acre about twice in a five-year rotation; while a single 60-bushel crop of corn would remove from the soil 90 pounds of nitrogen, 14 pounds of phosphorus and 44 pounds of potassium.

The purchase of either commercial nitrogen or potassium is both unnecessary and unprofitable in good systems of general farming on normal soils, and the cost of phosphorus in such "complete" fertilizers is about ten times as much as it can be bought for in suitable form for the most profitable use in practical permanent soil-improvement.

It must be admitted, too, that the statements made by agents with "interests" behind them, or by "boosters" for some "eldorado," are often wide-spread and not infrequently receive much credence; while the actual data secured by carefully conducted and long-continued agricultural investigations are often ignored or discredited.

As an average of thirty-six years, \$3.28 per acre invested in phosphorus at each rotation paid back \$25.12 in the value of the increased crops on Agdell Field at Rothamsted. This is one of the most important agricultural facts in all history, but it is not known or appreciated by one per cent. of the American farmers

and landowners, although the investigation was conducted during the years 1848 to 1883, and the results have been available for almost a generation.

Would the reader like to know what kind of soil was used, what crops were grown, what rotation was practised, what system of farming was followed and what prices were paid for phosphorus and received for the farm products? Would a careful study of this investigation be as interesting and important as a study of some seedsman's catalogue of advertised seeds, which in most cases are little better, and in many cases no better, than the average farmer could easily and profitably save from his own fields?

An Example at Rothamsted

The soil at Rothamsted is a clay loam of normal composition, and it had received liberal applications of calcium carbonate in the form of chalk or limestone (not burned lime). Two million pounds of the surface soil, corresponding approximately to the plowed soil of an acre (about six and two-thirds inches deep), contained about 2,500 pounds of nitrogen, 1,000 pounds of phosphorus and 35,000 pounds of potassium. A four-year rotation was practised, and the regular crops included two small grains, one cultivated crop and one legume. A very similar rotation with common American crops would be wheat, corn, oats and clover. The cultivated crop used was swede turnips (rutabagas) in place of corn, and the spring-sown grain was barley instead of oats. This is the famous Norfolk rotation: First year, wheat; second year, turnips; third year, barley, with clover seeding; fourth year, clover. Whenever the clover failed, beans were substituted, so that a

and beans, or by using the clover straw for feed and bedding, and returning the manure to the land.

In 1902 the University of Illinois began investigation by field experiments of the typical corn-belt prairie land in McLean County. The soil is known as brown silt loam. The plowed soil of an acre (two million pounds) was found by ultimate analysis to contain 5,000 pounds of nitrogen, 1,200 pounds of phosphorus and 35,000 pounds of potassium. The soil was practically neutral in reaction.

A five-year rotation, including two crops of corn and one, each, of oats, clover and wheat, has been practised. Counting corn at 35 cents a bushel, oats at 30 cents, wheat at 70 cents, clover at \$6.00 a ton for hay and \$6.00 a bushel for seed, and phosphorus at 10 cents a pound (in steamed bone-meal), \$12.50 invested in that element for each rotation paid back \$23.35 during the first five years and \$57.27 during the second five-year period. The value of the total increase in ten years on plots not receiving phosphorus varied from 85 cents per acre for lime, and \$1.23 for lime and potassium, to \$3.40 for lime and nitrogenous organic matter, and to only \$2.06 for lime, potassium and nitrogenous organic matter; but where phosphorus was included in the treatment the value of the increase for ten years amounted to \$81.47 per acre for lime and phosphorus, and to \$81.30 for lime, phosphorus and potassium combined. These values include the increase in clover-hay. Where the clover-hay was returned to the soil as nitrogenous organic matter and hence not included in the financial computation, the remaining value of increase was \$73.40 for lime and phosphorus, and \$77.67 for lime, phosphorus and potassium combined.

In 1911, four plots of wheat to which no phosphorus has been applied produced in round numbers 22, 26, 23 and 27 bushels, respectively, per acre; while four other adjoining or intervening plots which differ from the above only by having received applications of phosphorus during the past ten years produced 58, 60, 54 and 60 bushels, respectively, per acre.

Normal Corn-Belt Conditions

These results, it should be kept in mind, have been secured on *normal* corn-belt land, on which a good rotation of crops is practised, including clover, and where the soil is deficient in phosphorus but exceedingly rich in potassium, moderately well supplied with nitrogen and organic matter, and but slightly in need of lime.

Thus in 1906, on the very sandy soil on the University of Illinois soil-experiment field at Green Valley, Tazewell County, four plots treated in different ways, but not receiving nitrogen, produced respectively 18, 10, 8 and 18 bushels of corn per acre; while four other plots which differed from the above in treatment only by the addition of nitrogen (in organic form) produced 63, 71, 75 and 66 bushels, respectively, per acre.

On another type of abnormal soil—namely, peaty swamp-land, which is abundantly supplied with all plant-food except potassium—four plots not receiving potassium produced, respectively, 12, 10, 22 and 14 bushels of corn per acre in 1905 on the University of Illinois soil-experiment field at Manito, Mason County; four other plots to which potassium was applied produced 47, 48, 53 and 47 bushels, respectively, per acre.

These results are indeed striking, but they are correct for each of the three soils described, and they only emphasize the truth concerning the absolute necessity of plant-food, the most neglected of all the essential factors of crop-production.

EDITOR'S NOTE—Director Charles E. Thorne, of the Ohio Agricultural Experiment Station, furnished FARM AND FIRE-SIDE with the two photographs on this page. He says:

In the five-year rotation of corn, oats, wheat and clover conducted at this station since 1893, Plot 1, unfertilized, has yielded an average of 10.85 bushels of wheat per acre for the seventeen harvests, 1894-1910; Plot 2, receiving 160 pounds of acid phosphate per acre, has averaged 19.05 bushels; Plot 7, unfertilized, has averaged 11.18 bushels, and Plot 8, receiving 160 pounds of acid phosphate and 100 pounds of muriate of potash, has averaged 20.25 bushels.

And then he makes some comments which are so good they cannot be omitted. They are found on Page 6.

It Paid to Feed the Wheat

The four pieces of ground not fertilized yielded:

22 bushels per acre	████████████████████
26 bushels per acre	████████████████████
22 bushels per acre	████████████████████
27 bushels per acre	████████████████████

But the same kind of soil, with the same seeds planted the same way, when phosphorus was added, yielded:

58 bushels per acre	██
60 bushels per acre	██
54 bushels per acre	██
60 bushels per acre	██

legume crop was grown on the land every fourth year.

All crops were harvested and removed except the turnips; these were pastured off with sheep, so that the organic matter and nitrogen supplied were limited to the sheep-manure and to such residues as the roots and stubble of the different crops grown. (Both the first and second crops of clover were regularly taken off the land.)

The phosphorus cost 12 cents a pound in acid phosphate, and the prices allowed from the farm crops are 70 cents a bushel for wheat, \$1.40 a ton for turnips (roots only), 50 cents a bushel for barley, \$6.00 a ton for clover-hay and \$1.25 a bushel for beans.

The Money Comes Back

If the cost of phosphorus were less and the prices for produce more, then the financial outcome would be greater, but at the prices stated each dollar invested in phosphorus paid back \$7.66 as an average of the thirty-six years.

As already stated, the limestone was provided in abundance. The rotation and general method of farming were reasonably good, although the nitrogenous organic matter supplied was not adequate for the best results, and not as much as could easily have been supplied from the crops grown, as, for example, by returning to the land the straw from the wheat, barley



Plot 1



Plot 8

Plot 2

Read the Editor's Note

Plot 7

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The Market Outlook

And Other Matters Affecting Fall Live-Stock Work

Hog-Market Sluggish



THE hog-market has developed a sluggish tone during the last few weeks. Packers in their bear campaign have become indifferent about purchasing and will only buy on a lower market.

A supply of hold-overs is usually on hand which they can use to force the market down on the following day. Whatever reactions there are, are weak and are muzzled before the day is half gone. They are purchasing only enough to keep the fresh-meat trade supplied, but will doubtless be heavy purchasers later on, after they have hammered the price down as far as they can and after the winter run is on.

Eastern buyers are not bidders in the western markets, because the local supply is ample for their needs. Buffalo and Pittsburgh are receiving all the hogs they can handle.

This condition aids the packers all the more in their bear campaign, because they have no eastern competition to fight. The result has been an almost steady decline of better than a dollar, and there will doubtless be more.

The run of little pigs has increased, but the packers are not worried over this, as the public is fond of pig-pork, and the fresh-meat channels are handling the supply. Packers hold that this is just a method of the grower of unloading surplus stock, but many country shippers report considerable sickness, due to careless green-corn feeding and to cholera. In addition to this, all the pigs are small for their age, and many are runty. The demand for stock hogs has greatly diminished. Feeders seem to be supplied or are doubtful as to the future market, and so are holding back, thus making the shambles the only outlet for that class of stuff. The larger the number of little pigs and half-fat shoats put on the market, the faster will the packers be able to force the price down and the sooner will the low point of the winter prices be reached. After this run is over, the hogs coming to market will not be so numerous, and the prices are bound to rise with the increased demand of winter packing operations. The heavier the run now, the smaller will be the supply in the late winter and the sharper will be the rise in price. If during the winter the market develops a condition unfavorable to the producer, he will be inclined to sell much of his sow stuff, and thus add aggravation to the already bad situation.

The demand for feeding sheep has widened and large numbers of lambs have gone into Iowa feed-lots from the South Omaha and Kansas City yards. This should add confidence to feeding operations in general and may be a factor in raising the price of corn which, in turn, would strengthen the prices of hog-products.

The packers who contend that there are lots of old hogs still in the country and those who expect a goodly supply from the Southwest are both going to be disappointed. There are no old hogs to speak of in the country. The steady marketing of heavy hogs during all the summer is evidence of this. Reports from the Southwest indicate that droughty conditions have forced growers out of the business and that they will have but few hogs to sell this winter.

Reports from Europe indicate that there have been heavy losses from disease, especially in Germany. This will broaden the export demand later on, which has been quite slack of late. The export demand is now strong for lard, but weak for smoked meats.

Favorable weather has allowed even much of the late corn to ripen, and a larger supply of feed is now certain than normal weather conditions would have indicated the latter part of August.

Looking at all the present conditions, there seems to be no reason to modify my estimates made four and two weeks ago. The market will continue to decline until the undesirable stuff is disposed of. This will be followed by a rebound in price as the steady supply of prime packing hogs takes possession of the market.

LLOYD K. BROWN, South Dakota.

Grade the hogs as to size, thrift and general condition, and separate them into two or three lots before beginning to feed them for the market. You thus will realize greater profits from the sale of swine, since each herd will be more uniform in size and condition. Besides, each lot of hogs may be fed more economically, since what meets the needs of some will not meet the needs of all.

The Drop in Lambs

THE return to better prices which took place in August was soon lost. Early in September an unprecedented run of sheep and lambs was poured into Chicago and the other principal western markets. In the second week no less than 180,893, the majority being western lambs, were received in Chicago; and about 50,000 in Omaha in one day. As a matter of course, down went prices from about \$6.50 and \$7 to \$5.40 and \$5.57 for prime lambs. Sheep and yearlings were not so badly affected. Luckily, feeders began to buy pretty freely, so this mass of stuff, by the aid of large shipments going countrywards, was cleared up far better than seemed possible. About the middle of the month this vast flood eased up, and prices crept up to about \$6.25 to \$6.75, and by the twentieth the market had steadied to about those rates. There even arose quite a competition between killers and feeders, the latter taking both sheep and lambs which the packers would have taken but for this competition. In the meanwhile Buffalo, which received nearly 400,000 more sheep and lambs during the first eight months of this year than during those of the last, had maintained the higher line of prices.

The practical effect of all this will be, in the opinion of men best qualified to judge, to cause a considerable rise in the markets during the next two months and a serious shortness of fat sheep and lambs early next year.

The export of prime beef, though small as compared with what it has been, is still sufficiently great to make it a drain on our own home supply; this and the certainty of a shortness in the supply of feeding cattle make it almost certain that meat will be scarce and dearer, for the rapid increase in population and the general prosperity of the working classes, enabling them to become great consumers of it, point to a constantly increasing domestic demand. Added to this is a seemingly general shortness in the supply of feedstuffs and a consequent rise in their cost. The supply of hogs appears to keep up more closely with the demand.

All these facts point clearly to a great change impending on our methods of agriculture. Forage crops must become a necessity, and being rendered more available by the use of the silo they will tend either to an increased production of mill products, such as corn-and-cob meal, bran, screenings of the various kinds and the by-products of breweries and distilleries, or they will, helped out by balanced rations of grain and linseed and cotton oil products, to a great extent take the place of those feeds. Besides this, the increased fertility of the soil produced by the consumption of these forage crops where they are grown will increase the yield of all the grain crops and stimulate a more scientific and, therefore, a better-paying system of general farming; and it's here where the breeder and feeder of high-class sheep and lambs will come to his own, if he will only breed them right and feed them right. If he is conscious of a want of knowledge on this subject, there is plenty of good literature, as well as agricultural colleges and experiment stations, where he can get the best of information for the asking. No fear need be felt as to the paying end of the business.

I have so often in FARM AND FIRESIDE urged the superiority of Shropshire rams for cross-breeding, and especially for the raising of early lambs, that I cannot refrain from quoting the following extract from the English *Live Stock Journal* in confirmation of that opinion. It occurs in a notice of the recent annual auction sale at Mr. T. A. Buttar's, a man who as a breeder of "Shrops" is about as well-known here as over there. "The majority of the rams were purchased by tenant farmers for cross-breeding or for fat-lamb purposes, many of the buyers being old customers who had been experimenting with other breeds, but had finally decided that the best results were obtained from Shropshire rams." The highest price paid was \$150 for a ram to go to Chile. The "foot and mouth" disease has been a great drawback to their export trade.

JOHN PICKERING ROSS, Illinois.

Trimming Sheep's Feet

RAINY fall days are here; days when it is wise to catch up with small chores. One of these of no little importance to the sheep-farmer is the trimming of the sheep's feet.

In the course of the summer their toes grow long, turning under when wet weather comes. In these pockets filth accumulates and there foot-rot starts. Any prevention of foot-rot is worth looking after, and so these rough feet must be straightened up before the long season of winter housing comes. Do it now.

J. C. COURTER.

When to Start Feeding

THE age at which steers should be fattened entirely depends on conditions. If any man is raising his own calves from any of the beef breeds the calves without a doubt should be fed from birth. Men who make "baby beef" buy well-bred calves which have run with the cow and retain their calf fat. These calves, when weaned, weigh from 350 to 450 pounds. Such calves, if properly fed, will gain from fifty to sixty pounds per month and will sell right at the top of the market at sixteen to eighteen months old. Even calves raised on skim-milk, if oil-meal is added to the milk, will, if fed grain and clover, make good and profitable gains. With grain and hay at present prices it costs about seven cents to put one pound of meat on a calf and about eleven to twelve cents on a big steer, so that in fattening calves there is less advance in price needed to get out even or make a profit. The one great objection to calf-feeding is that they have to be good to sell well. A calf sold when half-fat seldom pays for his feed.

Where steers have to be bought as feeders, there are several essential things to remember: First, that it is very much cheaper to buy the meat on the steer than to put it on with present prices of feed, therefore, if anyone contemplates feeding cattle now, the heavier and fatter they are, the better. Such steers, mostly three years old, will get fat in ninety days, as they already have the frame growth and grass-fat on them. The same applies to cows—buy as much grass-fat on them as you can. As a general rule, a great many cattle are bought in November and December weighing from 750 to 900 pounds. Such cattle should not be put on full feed then, as by June, even with a good price, they will have eaten their heads off. Such cattle by December 1st have lost weight since grass, and when bought are pretty well shrunk out. If turned out on fresh corn-stalks and straw, they will hold weight on this cheap roughness until February 1st, when they ought to be put up and fed for summer. It being understood, of course, that, if the winter is severe, the cattle should not be allowed to lose weight, as there would be little profit in losing weight in December and June and merely putting it back again in February and March. Good, thrifty young cows and spayed or barren heifers always sell well just before grass comes and generally lose money if sold during the winter months.

Always try and let the other fellow do as much of the wintering as you can before you start the feeding. W. S. A. SMITH, Iowa.

From Texas it is reported that the mills are holding meal at prohibitive prices, while feeders are somewhat lower in price.

The population of the country increased twenty-one per cent. between 1900 and 1910, while the area of farm lands increased but 4.2 per cent. This is so stated by G. E. Roberts, director of the United States Mint.

Doubling the Yield

DIRECTOR THORNE, referring to the subject of soil fertility and to the illustrations on Page 5, adds:

Taking all the crops of the rotation, the increase on Plot 2 has been worth \$2.78 annually over the cost of fertilizing, and that on Plot 8, \$3.02 annually; while Plot 11, receiving the same quantities of acid phosphate and muriate of potash, together with nitrate of soda, has yielded a net gain of \$3.12 annually; corn being valued at 40 cents per bushel, oats at 30 cents, wheat at 80 cents, hay at \$8 per ton, stover at \$1 and straw at \$2.

The experience gained in this and similar work leads us to believe that we have used two or three times as much potash as would have been required to produce the most profitable return, and has shown that it is practicable to substitute farm manure for both potash and nitrogen, leaving only the phosphorus to be purchased. This would effect a very great saving, since the cost of the phosphorus for the five crops of a rotation has been but \$2.60, while that of the potash has been \$6.50 and that of the nitrogen \$14.40. Even at this great cost, however, it has been profitable to use nitrogen at this rate on the thin land under this experiment.

The outcome of the work of this station on the maintenance of fertility, now extending over eighteen years and on various soils of the state, may be summarized as follows:

(1) Phosphorus must be added to all lands of Ohio which have been in cultivation for any considerable period, and it must be brought in from outside the state.

(2) After phosphorus has been furnished, nearly all our soils will respond to applications of potassium and nitrogen. On the thinner lands these can be used at a profit even when purchased in commercial fertilizers, but the farmer who learns intelligently to produce and care for clover and manure will soon dispense with the purchase of nitrogen and potassium.

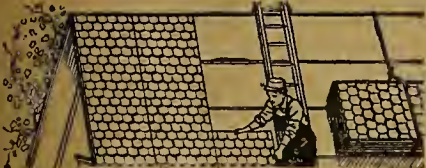
(3) Over much of eastern Ohio lime must be added before full crops can be produced.

These facts illustrate what is now being done in Ohio to establish a system for doubling the present yields of farm grains. Other states are working along similar lines.

AT WHAT AGE SHOULD STEERS BE FATTENED? This question has been answered by Captain Smith in this number. Other live-stock experts will take up this same question in early issues.

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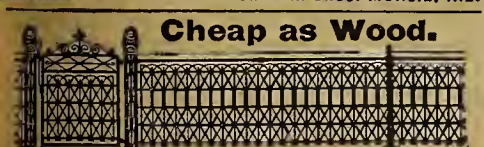
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Shock-Corn Feeding of Cattle

THERE are many factors to be considered when one starts to feed any kind of stock. One of these is the amount of capital that is required to begin the work, while another is the amount of time and labor that is required in it, and, of course, still another is the profit that will come from the transaction. There are a thousand and one other elements entering into the work that are to be considered, some in special cases and others in lines of special work; but those three are ever present. Taking the matter from these three standpoints, shock-corn feeding will compare favorably with any. The same thing may be said when general conditions are taken into account.

In disposing of the corn crop, the labor cost is a very important thing. The total cost of a bushel of corn from the stalk to the elevator is eighteen cents per hundredweight. When all or a part of this expense can be saved by some method of feeding, it helps a long way toward profit. In feeding shock-corn to cattle, the cost of husking, cribbing and hauling the corn to market is saved. This amounts to seven cents per hundredweight on the husking, one cent on the cribbing and five cents for hauling to market, or a total of thirteen cents per hundredweight. The cost of feeding the shock-corn to the cattle figures up to approximately eleven cents per hundredweight. Thus, in the first place, it costs less to feed the corn than it does to market it, even when the manure is not considered. All the cost of grinding corn, husking and the mixing of feeds is saved. That item alone amounts to a considerable amount in a season's operations. Professor Mumford, of Illinois, is accredited with the statement that shock-corn produces as economical gains as any feed that is in use. Of course, that does not mean that a pound fed in this manner will produce as much gain as when fed in some other form, but that a dollar invested in shock-corn will result in the production of as much beef as a dollar invested in some other feed. At the same time, it does not imply that a load that would win first at the International could be finished on it. However, it does mean that for ordinary conditions it is as good as any feed going, even though it does not conform to the standards of a balanced ration and does in a way appear wasteful.

Little Expense Required

Another important argument in its favor is the fact that it does not require an expensive or extensive equipment to begin business. An open yard with sheds in connection is all that is required, together with mangers of the simplest construction and an abundant supply of water. Compared with stables, the difference is a great one. Many successful feeders have no shelter other than a straw-shed; however, we have a closed shed with removable sides on one side of the yard, while a large sheep-shed is on the other. We use these either alone or together as the occasion demands. The yard is well drained and is of fair size. The mangers are no more than a box with neither a top nor a bottom. The sides are not boarded up tight at all; but are left as a crate. They are forty inches high, forty-eight inches wide and eight or ten feet long, well braced and made of some substantial material. The shock-corn is really thrown on the ground, though the sides of the manger do keep it from getting away. As the manger becomes well filled with stalks, it is simply rolled over, a few stalks thrown in to keep the corn from going on the ground and the process begins over again.

You will all say that this is wasteful and exceedingly impractical; but this year more than five thousand cattle were fed in this manner in a single Ohio county. What is more, the men made money and paid for farms out of their profits, and what is even more, they kept up the fertility of the land. No corn is wasted because a hog is kept in the yard for every steer on feed. These hogs do not let a single kernel go by them, and as a rule, when the cattle are ready for market, the hogs are ready as well. It is simply a case of the utilization of waste products.

Get Good Stock

As a general thing we get in cattle of fair quality that are shipped to us by a commission man in Chicago, though we often go to central Michigan or southern Ohio and pick up a load among the farmers who make a practice of pasturing stock over the summer. We do not care where we buy. The main thing is to get value for the money expended. We do not always buy a high grade of stock. One of the most profitable loads handled was made up of bulls that were bought reasonably and castrated. The really big profits in live stock come through buying cheap and selling high. High-grade animals, for which you have to pay a correspondingly high price, do not always give you a greater profit than low-grade stuff that is bought cheap and sold at a fair advance. Get the best quality of stock that you can, but do not pay excessive prices to get it.

On our own farm, we usually go in for a short feed of from one hundred to one hundred and fifty days, and in such a case we usually get cattle carrying some flesh and weighing around one thousand pounds or

better. We aim to get a gain of two pounds a day, though there are many instances of getting as high as three pounds a day by straight shock-corn feeding. But a two-pound gain will get them in fair condition and weight within the four-month limit. We sometimes get the cattle in the yard along about the last of September. At other times we get half-fat cattle along in February or March and feed them out for market late in May. It is seldom that we follow exactly the same plan two years in succession. Market conditions and the local conditions vary from year to year. Many of our neighbors have been making great profits by buying eight-hundred-pound stuff or even lighter, roughing them through the winter on light feeds of shock-corn and straight fodder, and finishing them off late in the spring. In fact, this method will adjust itself to about any weight of cattle from eight hundred pounds up, and to any time you want to yard them.

"Stingy Feeding Seldom Pays"

Of course, we do not begin to give them all the shock-corn they will eat at first. If any grass is at hand, they are put on it and given a light feed each day, the same being gradually increased until they are yarded. We often take a month or more to get them on full feed, but when they are on full feed, we do not cut the ration simply because on one day they do not happen to clean up all that is given them. Stingy feeding seldom pays. The hogs are always there to pick up what is left. It is seldom that we give anything but straight shock-corn. However, straw is always relished at the noon-hour. Sometimes we have given them clover-hay in addition. When the price of meat is high and clover less than nine dollars a ton, we have found it to pay out as a general thing. Some of our neighbors report excellent success from the use of oil-meal, cotton-seed meal and some stock-foods.

Everyone is interested in profits. They depend on how much the stock cost, the selling price, the gains made and the value of the corn. Now, as all of these are variable, it is a hard topic to discuss. However, with corn at the prices at which it has sold during the past two years, we have made a good profit above the market value of the corn by getting a two-pound gain on an advance of \$1.25 per hundredweight in four months. Three years ago, forty steers with forty hogs gave us a clear profit of \$650 on a four-months' feed. The cattle returned the manure and a profit of \$125, while the rest came from the hogs. In thirty-three years of cattle-feeding experience, there have been but four seasons when we did not get full market value and the manure out of the corn fed. When it costs no more to feed the corn than to market it, you are really making a profit if the cattle will return market prices for the corn fed, since you have the manure ahead.

C. A. WAUGH.



"Handsome is as handsome does"

As far as grass is concerned, general reports from the West, with exceptions from spots here and there, are very encouraging. The supply of water, too, is said to be ample. The trouble seems likely to be felt in the spring from the shortness of both cattle and sheep. Shipments from Oregon, Nevada, Washington, Idaho and Utah have spent their force; what remains will come from Montana, Wyoming and the Dakotas. These will be mostly fat lots, and there will be the smallest proportion of feeders in some years. This is as reported by reliable correspondents of Clay, Robinson & Co.'s Live-Stock Report.

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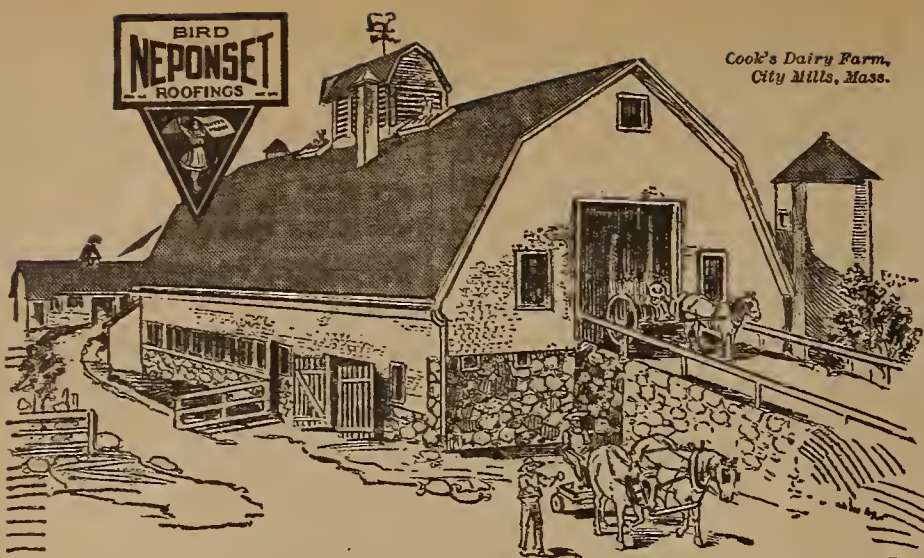
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Hamilton, Ont. Winnipeg Montreal St. John

Fall Care of Dairy Cows

OCTOBER and November are the crucial tests of good dairying. Anyone observing the markets for dairy products at this season of the year knows well enough that prices advance by reason of shrinkage. With most farmers it is a very easy matter to get a big flow of milk when the weather is warm and pleasant and when nature's food, grass, is abundant. But when this supply is exhausted and fall comes upon us, when the skill and energy of man is required, then comes the real test of a good dairyman. When cows are running upon good after-feed or fed plenty of green material, no matter what care they are given, when first stabled, they are bound to shrink in their flow of milk. On the other hand, any permanent shrinkage will not remain, unless it be with cows that are nearing the freshening period, if they are fed their full winter ration.

Many farmers make the sad mistake of leaving their cows out too late in the fall before stabling them and not feeding enough coarse fodder. At just what time cows should first be stabled is an opinion from which all differ. I have found it a good practice to begin stabling them nights as the nights become cold. Cows laying on the cold ground will not only produce less milk, but be troubled with bag disorders; especially is this true of fresh cows whose milking machinery is working hard and very susceptible to untoward influences.

Feeding for Money

One must not think that barn care will alone maintain milk-flow, neither will increased feed accomplish the result at this particular season of the year. Any cow whose milk machinery is dwarfed will not respond, any more than extra feed will itself make a horse trot fast that has remained idle for a period. How often we fail to appreciate that the course of feed nutrients is somewhat a matter of education? To be sure, a beef-cow cannot be trained to large milk-production, but a cow of average dairy conformation, if taken when fresh, and fed upon stimulating, milk-producing foods, will make for a much larger production of milk at this season. The question is often raised, that extra feed does not pay until the crucial test comes.

But in my experience from alternate years of feeding and not feeding I know it does pay. In other words, the working parts of a dairy cow quickly conform to the ideal of her owner, measured, to be sure, by her limitations and capacity. Every dairy reader can quickly cite men who invariably get large returns, and others who are as sure to obtain minimum yields from stock not materially unlike in their natural capacity through heredity.

I mention previous feed and care because it is essential to a maximum yield. In fact, high milk-production or, perhaps, rather extreme milk-flow is the product of food and care or education.

Provide Comfortable Quarters

If our preliminary care and feed has been right and the cows are strong, healthy milk-producers, there need be but little trouble in maintaining a profitable flow of milk. An essential which must not be omitted is a warm, clean, well-lighted and ventilated stable. We must not neglect this if we wish to be successful. There is certainly a lack of appreciation on this point. No matter what the feed may be, a comfortable stable must be the by-word. Another thing is water. Have it before the cows all the time. Use buckets or any other watering-device suited to owner's taste. When the cow is turned out to water, she will not uniformly get enough, saying nothing about the chill given by both water and air. To-day she does not drink enough, to-morrow she over-drinks. One extreme is as bad as the other. Maximum flow will be secured only through stable watering. If I had to take out my water-buckets every spring and replace them in the fall, all new, the extra expense would be returned to me in a short time by more milk and the cows would be in much better condition on the same feeding.

Home-grown hay, ensilage, straw, etc., are to be used. Especially is it necessary to

have some succulent food when the cows are taken from grass and for those that are long in lactation. They are very susceptible to changes. The grain feed will depend upon the cost of food nutrients in order to secure a balanced ration. If the chemist is of any value, why not use him and learn of those foods that contain the largest amount of digestible protein, carbohydrates and fat, and which is purchasable for the least money? We are, in my judgment, yet unable to look at the concentrated feeds from the proper standpoint, not because they are called gluten, hominy or any other feed, but what are the total pounds per ton of digestible nutrients purchasable at a given price. It is a slow, hard process of education to value a food other than by its commercial value, but so long as this is our only practice we shall be unable to view the feed question from its highest scientific standpoint. The care at this season means the eye and hand of the dairyman. He must as surely live with his cows during the working hours of the day as any business man must stay at his desk or office, no matter what may be his desire, wish or ambition. Results hang upon the time and study given this great American source of profit.

A. E. VANDERVORT.

Register the Cows' Yield

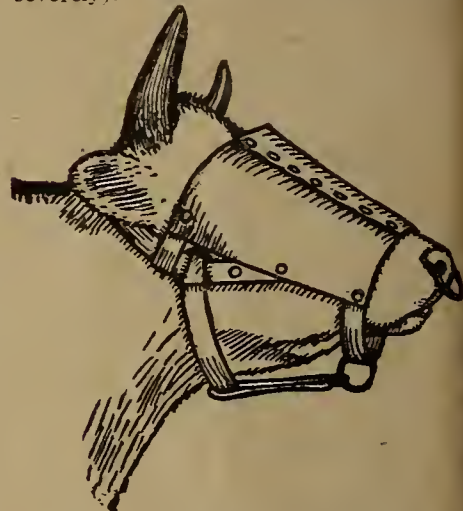
IT IS, of course, the great aim of the dairy farmer to increase his yield by judicious breeding and feeding, but I make bold to assert that unless these are accompanied by proper registers of individual yields he is simply working in the dark and, for all he knows, may be wasting money on the keep of useless animals. Appearances are proverbially deceitful, and never more so than in the casual observation of how a certain cow is doing her duty at the pail. Every dairyman knows how greatly his cows vary in their yield at certain periods after calving. Well-kept books may reveal that the year's total for the steady milker is far better than that of the flashy performers.

W. R. GILBERT.

Bull Hoodwinked

THE following description of a hood for a bull that has become breachy is written by a contributor to *Hoard's Dairyman*:

I got a flank of leather for about \$1.25, took a good five-ring halter that fit (you can vary the size), cut the front, 13 inches at top by 8 inches at bottom and 12 inches long; two side pieces 8 inches wide at top by 6 inches bottom, 12 inches long; cut front of side pieces square, back on a miter. Put inside of leather together, black side down of front and up of side, rivet about three fourths of an inch from edge with copper belt rivets and burs long enough to rivet well, and one and one-fourth inches apart center to center (as he will try it severely).



The hood will stand open like a box at corners over his eyes, giving good ventilation and some light. Rivet back of side pieces to side strap of halter between the rings, make a loop around back of upper ring and rivet; rivet a strap to lower corner and pass through hitch ring to other corner of side piece; rivet bottom of front to nose piece of halter.

The drawing shows how it is used. Those who have tried it recommend it.

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THOUGHTS are pictures which vary according to point of view, which is a result of mental digestion influenced by observation and experience.

A reason should be found as a cause for a bad habit before a rational remedy can be employed. For example, I never knew of a poor cow ever sucking herself. It is always some young, choice and valuable well-developed animal that has not been carefully and intelligently developed. She suffers with undue pressure of milk and seeks to relieve her distress, and it is her only means to that end.

I have had cows leave the herd and come home at noon to be milked, then go back to the herd, two miles away. If one would succeed financially in the dairy business, he should develop his heifers up to five and six hundred pounds of butter per year and weed all others out, then feed and care for them as he should.

The human race had to first develop good horsemen before it derived the highest efficiency in its servant, the horse. The horsemen met the horse upon the level, and they became mutual friends. The horse taught the man what he wanted and then what he could do, and the man provided him with what he wanted and helped him to do. Each taught the other, and as a result we have a better man and a better horse.

So we should do with cows, potatoes and corn, and all throughout the kingdoms of all life. All intelligence of all forms of life is developed by each separate type of life, and there we must go to learn.



The two cows here illustrated are directly opposite in temperament and disposition. They were bought at different times and different places. The dark one was nine years old when purchased, and the light one four years of age. From the milk of these cows, kept on an old, abandoned farm, I made over a thousand pounds of butter annually for several years. They were, to be sure, high-grade heifers that would make at their best and with the best of feed about eight to nine pounds of butter per week before I got them and made good cows of them, by studying their temperament and treating them accordingly.

What I was able to do in developing under difficulties, up-to-date farmers should do with ease. It is not only the feed and breed, but close, sympathetic relations between man and beast that make cows do their best.

E. M. LOVELAND.

The Pig's Viewpoint

I'M a pig, or, better still, call me a gilt, and I am now entering on my youth: as just yesterday mama turned my brothers, sisters and I out to shift for ourselves. We were only two months old, rather young to be thrown on the world's mercy, but who cares? Our master doesn't care, as he never comes around us hogs except at night to give us our grain, in a don't-care way, and then is gone again. Yet we have a good place to graze and play, a creek to drink and wallow in, a shelter at night or in storms, besides our corn. What a scramble for that feed; there isn't enough for all of us, so the old sows crowd and bite us pigs so that we only get the few kernels they leave while running from ear to ear, seeing which is the best and easiest to eat. Sometimes the man feeding us will get mad, start swearing and kick the old ones away, thus giving the shoats a chance, but when he has gone, they rush back again, fighting us away to the eating of the leavings.

Even though we don't get much grain, we have a fine place to graze, and lots of it—alfalfa (I like that best of all), bluegrass (fine to work up an appetite for alfalfa while going out in the morning or evening) and weeds. Men think we only need grass, water and corn, but now how'd they like to have just two things to eat every day, week in and week out? Just as we all come in to

rest under the shade through the day we like to clip off a few nettle-leaves, red-root tops, sunflower-leaves, a little rape and even gourd-vines. Why? I suppose you men would call it seasoning. Anyhow, we hogs like them along with the grass. When the sun is getting low, we go out again directly to the alfalfa and after that for the bluegrass; then it's certainly fine, but if eaten alone it does take so long to satisfy one's appetite! After all, the one thing we look forward to is supper, thinking perhaps we'll get a little more corn than usual and there'll be enough for everyone; but it's always the same old way, only an ear apiece, and then the old ones getting what is rightfully ours.

How nice to come in after the morning's graze and lie in the shade of the willows, just to lay there on one's side resting and dreaming in contentment; it's then we're all satisfied, only giving grunts of peaceful lassitude. Oh, how good the world does seem then! As it grows hotter, we take turns lying in the creek, cooling off and getting relief from troublesome lice.

How I do wish our owner would dip us, as mother said he did her last year! Just think, here we're trying to get along on grass and a little corn only to be tormented with lice sapping away our strength. Still, he blames us, saying he don't see why we are not putting on any fat. If he could only feel these parasites, he'd know why. Oh, it's such a delight to find a box elder or ash sapling and scratch. This is a relief for a time, but not long; sometimes these tormentors are so bad that we'll stop eating and scratch them off with one of our hind feet. Yes, I've seen the time that old hogs put in more time scratching and rubbing off lice than they did in eating.

It's getting nearer fall now, the nights are cooler and we are glad to sleep in the barn. What a fine place to sleep that would be if we only had more and cleaner bedding. What we have is mixed with dust and is so cold. So we have to get up close together that we may keep warm. If it gets much colder, we'll have to pile up (I'd want to be the one on top, so I wouldn't smother) to keep from freezing.

Oh, yes, we're getting more corn now, early in the morning (sometimes before daylight) and after dark. I do wonder why we can't have regular meals, the same as our master has? However, I shouldn't grumble, as there's enough for us all; but then we need more, as the alfalfa doesn't grow so fast as it did and we have to depend on bluegrass. Still, we go out early in the morning and stay until we hear that particular call, for supper, we know so well. We shoats now often beat the old ones in, so that they get the shelled corn like we used to have all the grain we want to eat. Some of the old sows only graze an hour or so every day now, and then lay in the feed-yard, out of the wind, waiting for supper-time to come. Just think, mama is getting fat, she who was so poor and frail from the first time I can remember, and the other big hogs (as we shoats like to call them), too. You ought to see us shoats grow. It just seems that we're growing almost as fast as the weeds did along the pasture fence in the summer.

Though alfalfa is getting so we can't eat it, yet the bluegrass is still coming and the corn more plentiful, thus life is one of ease. Only the shoats care to go out and eat grass now, leaving the older ones to lay in a quiet corner, in the sun, sleeping and growing fat. I see some of them are getting so fat they can hardly walk straight, yet they will eat and eat and fight over the feed just as they did when getting only an ear apiece. Now oftentimes an ear has just a bite taken off, then is tramped in the mud and never is rooted out to be eaten. I do wish we had an eating-floor of some kind though, so we wouldn't have to pick everything out of knee-deep mud and mire. There's so much mud that the water-trough is getting full of it. Still, one can drink at the creek, but it's awful cold.

Altogether, with the coming of winter, while we have plenty to eat and what most hogs would call pretty fair accommodations, I don't feel quite as hopeful as I used to. There's something about the way our master looks at us that gives me a sense of impending doom. I suppose I'm nervous, but when he points at us and says, "One of that pair we'll save over; but I'll be hanged if I can make up my mind which," I am impressed with a feeling that this is a mighty uncertain world. I don't know what is done with the one that isn't saved over, but I'd rather be the other, I know that!

C. BOLLES.

Style and good looks are not of such importance in a ram as vigor, constitution and undoubted good breeding. The two former requisites are pretty well understood, but only the experienced sheep-breeder knows that the get of a rather homely ram, possessing high blood are very apt to pass by his faulty looks and inherit, through him, the high qualities of his ancestral line. Give him a good head; a firm, round neck; plenty of room for the heart; sturdy, wide-apart legs; a broad back; good leg of mutton, and a general appearance of life and masculine vigor; all points covered by a good fleece; and never mind if he is not as smooth as some sheep you have seen at the shows.

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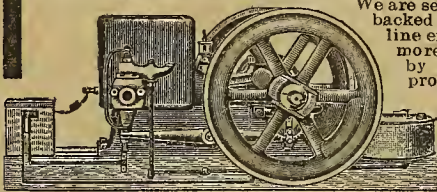
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Poultry-Raising

Poultry-Raising and Parcels Post

Not long ago a farmer's wife told me about some of the difficulties she had to contend with in raising poultry, and she asked me if I thought it possible for her to make enough from chickens and eggs to pay for all the feed they ate and leave her a small sum for spending-money. She said her husband objected to chickens because they required so much grain, and, with lots of wheat and oats in the barn and a crib full of corn, she preferred to buy the grain they used from a neighbor to avoid a fuss.

I had thought that all such men had passed away several years ago and certainly was surprised to learn that specimens of the tribe still exist. Of course, no real business farmer kicks about the grain his wife's chickens eat, but the two-for-a-nickel farmer does, as his father did before him. I am glad to state that in all my goings to and fro in the land I have met but very few of this latter class, and in nearly every instance they were narrow-minded persons who held the penny so close to their eyes that they were unable to see the dollar beyond and therefore never got it.

Money in Chickens

Hundreds of farmers are learning that there is as much profit in raising good market chickens and producing first-class table eggs as in raising hogs. Thousands have turned from raising a few hogs in cramped quarters to raising chickens, and have found a larger profit in the change. Thousands are making poultry-raising a specialty, and thousands more will when the fakes with their gold-brick "systems" are eliminated, and when breeders breed useful poultry instead of fancy fowls. After a while farmers will know more about the poultry business than they do now, and there will be no more swiping them out of a million with any attractively described device. I notice that those who consider the poultry-raiser legitimate prey are patting one of their ilk on the back because he is in a fair way to clean up about a million with a machine he is exploiting.

But I have a letter from a lady in Tennessee who seems to be having an up-hill job managing her poultry. She likes to work with poultry, and he is fond of both eggs and fowls on the table, and that would seem to be all sufficient to make poultry affairs on that farm very interesting. But he objects to fowls because of their fondness for grain. In figuring up her last year's poultry business, this lady says she considered the eggs and chickens used on the table fair pay for

the table-scrap fed them. Table-scrap must come a little high down there. I wonder what the average farmer would say if his wife charged him ten cents for every bucket of kitchen slops he fed to his pigs? He'd have a fit.

It surely is rather discouraging to a woman on the farm to have the grain the fowls eat charged up to her. If I were the woman, there would soon be an ex-poultry-raiser on that farm. In all my writings I have urged farmers to give their wives every opportunity and every encouragement to raise poultry. Nothing pleases nineteen out of every twenty women more than to be able to earn some money for themselves, money that will be their own, to do with as they please without question. Raising poultry is, if managed right, the easiest way for the farmer's wife to make her own spending-money.

Every farmer should be glad to let his wife have all the grain she needs for her fowls. He can bet his bottom dollar that it will not be wasted. He should willingly help her to fix up houses, yards, coops, etc., to make her poultry-raising a profitable business.

If we had a parcels post like they have in England, and almost all other countries but this, farmers could trade directly with people living in the cities who scarcely ever see a real fresh egg, and both parties would be greatly benefited. That is the way they do in England and other countries where they have a parcels post. But our statesmen are under the "benign influence" of the Express Trust, which is aided and abetted by all the retail parasites in the land, and the day of the parcels post seems afar off, mainly because the farmers and other people who would be most benefited by it do not go after it as they can by demanding that their representatives in Congress serve them instead of the trusts.

Why Not Parcels Post?

The parcels post is carried on in England at a good profit to the government. The rates are twelve cents for five pounds, twenty cents for ten pounds and twenty-two cents for eleven pounds, which is the heaviest package that can be sent by parcels post. Looking over these rates, one can see how easy it would be for the city man to get the best of fresh eggs and nicest dressed fowls from the farmer for a much lower price than he has to pay now, and still pay the farmer much higher prices than he now receives. But will we get a real parcels post from Congress? Not on your life we won't. The express pirates and retail parasites will see that we won't.

Think a minute. How pleased your own friends and relatives in the city would be to be able to get good, fresh eggs and lots of other good things at reasonable prices direct from the farm. Half the middleman's profit would go into your own pocket, and your customer would keep the other half in his. This very thing has been done in England and Germany and other countries for years. It will be done in this country when producer and consumer wake up and force Congress to give them a parcels post. It will take votes to do it. Elect the men who are for a parcels post.

FRED GRUNDY.

Autumn Poultry Jottings

Now is the time to put another window or two in the south side of the poultry-house, so that the biddies will have plenty of sun through the winter. A good way is to set a "storm sash" in lengthwise near the floor, so that the sun will shine into the lower part of the coop. This keeps the floor warm and dry and is worth a lot more than when it is set so high that the sun only shines into the upper part of the coop.

Watch out for the first snows, and keep the hens out of them. A fowl can't lay when her system is chilled. Keep your layers out of a heavy frost even until the sun is high enough to warm things up. Chickens have no sense. We must use our own brains for them to get the best results.

Remember, chickens stand plenty of confinement in fairly small quarters so long as they can be kept busy scratching and are reasonably warm and entirely dry. Dampness and inactivity will check the egg yield in short order.

O. E. CROOKER.

Our Guineas

WE WERE rather discouraged with our flock of guineas this year, as they were late commencing to lay eggs. I do not know just how many hens there are in the flock, but think there are about two dozen. Most of them were late-hatched last fall. However, recently we found a nest containing forty-six eggs, another with sixteen eggs and still another with fifty-four eggs. We have found other nests with not so many eggs. The guineas are likely to lay for three or four months yet and, as the eggs sell at from fifteen to twenty cents per dozen, we will likely come out yet. The guineas gather their own feed during the summer season. They range all over the farm hunting for grasshoppers, cutworms and all such insects as injure crops. We like a flock of guineas on the farm. If the guineas do injure crops some, they give a valuable product in return.

A. J. LEGG.

"Weak Legs"

A SUBSCRIBER in Kansas asks for a remedy for her chickens, which seem incapable of using their legs. Usually one leg stretches out to the front and the other to the back. Several chickens have recovered, but more are becoming affected with the disease.

The trouble described is probably the so-called "weak legs." This is a malady which more often affects chickens that are raised in the winter, for a rather long period on board floors, or are, at least, kept off the ground, and in quarters that are too cramped. The growth of the wings and legs of chickens is partly due to the exercise of these parts. If, for any reason, the exercise is insufficient, the body grows at the expense of the legs, becomes too heavy for them to carry, and this weakness results.

The remedy is to keep the chicks off hard board floors and let them run on the natural earth. To this should be added the old and very common point of instruction: Make the chicks work for their food.

P. B. HADLEY.

Tit for Tat



CITY MAN — "You've got some nice-looking chickens here."

SUBURBS — "Oh, these aren't my chickens; these belong to my neighbor."

"Why, I thought you kept chickens."
"I do, but you see my chickens are all over in my neighbor's yard."

Pocks on Small Chicks

A TEXAS reader wants to know a cure for chicken-pocks on small chicks.

This disease shows on the head and under side of wings ordinarily—little yellowish pock sores, round or oblong in shape. Accompanying these there may be pale combs and wattles, lack of appetite, weakness and sometimes blindness.

The most successful treatment is to isolate the affected fowls. Keep them in comfortable quarters, rub the sore parts carefully and thoroughly with carbolated vaseline twice daily. Let the affected fowls diet on finely cut cooked meat, green food and a mash of wheat-middlings and corn-meal moistened with milk. Disinfect the quarters and premises by spraying with a five per cent. carbolic-acid solution.

B. F. W. T.

Cackles

COLD quarters in the winter-time and laying hens are as far apart as the east is from the west.

Make a little inquiry, and you may find the city folks willing to allow you a good margin above the market price for strictly fresh eggs.

Fodder set up around the poultry-house, or some sort of roofing or building-paper inside, will not only add comfort to the flock, but also induce greater egg production.

With the bugs, worms and grasshoppers all gone, one will need to supply the poultry with meat in some form if the egg yield is to be maintained throughout the winter.

The man who doesn't have a proper place for his chickens and see that they go there to roost will not only fail to get what he should out of the poultry end of his farm, but he will find them doing damage in other places.

Make the Hens Lay

I AM asked how to make hens which have molted late begin laying.

Plenty of feed is very important to start hens laying. Make a feeder-hox and keep it a mixture of wheat-bran, one quart; middlings or shorts, two quarts; oats, one quart; oyster-shell, one pint. Keep this in their peck all the time. In the evening, just before the hens go to roost, give them three ears of corn and let them pick it off the cob. Break the ears in half. If you have no ear-corn give them a quart of corn cracked to the size of wheat-grains. Be sure they have plenty of water all the time.

To give them a little exercise in the morning, scatter a little wheat and cracked corn in their litter. It is all right to give laying hens some scratching exercise, but you make them scratch out their living, you get no eggs. They work off all surplus energy scratching for half enough to eat. With plenty of food easy of access, the energy goes to the making of eggs. Feed as above directed, and if they do not begin laying soon and keep at it, they are natural poor layers, like some cows are natural poor milkers. Hens can be bred up to lay same as cows can be bred up to yield heavily of milk or of butter-fat. A natural good layer will lay pretty steadily all the time. She is not broody nor growing a new coat of feathers if she is supplied plentifully with material to make eggs from, and plenty of water.

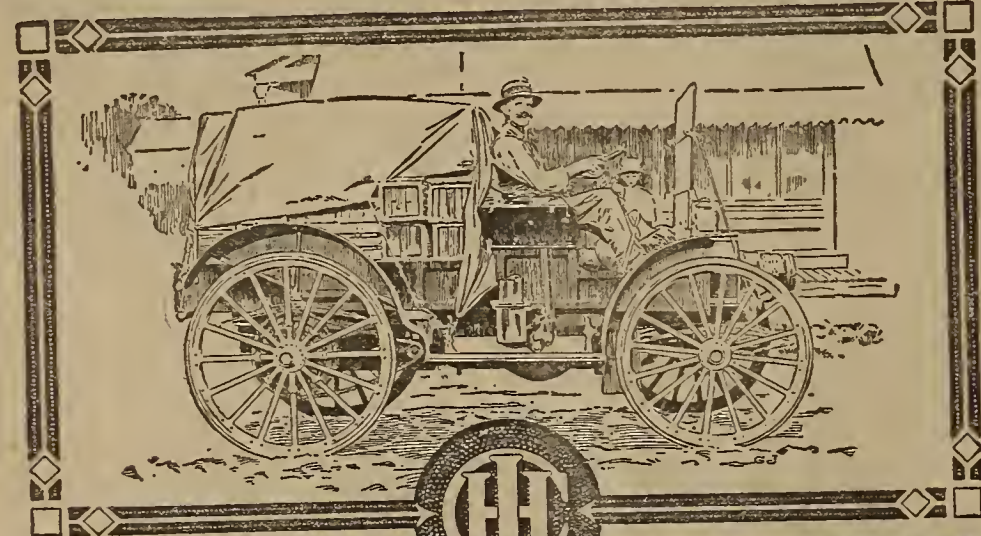
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CHICAGO U S A

Crops and Soils

An Interesting Farm Problem



IN THE following letter from a Massachusetts reader are some interesting items which lead to interesting comments: "I have twenty acres of dark loam soil, with clay subsoil, in northern Rhode Island," says the writer. "This has afforded a scant hay crop of late years, as it is decidedly run down. The whole of it has

just been plowed this fall. I want to put the land into shape before seeding again to grass and I am planning upon harrowing in the spring and planting cow-peas or buckwheat, to be turned under at the proper time for green manure. I shall see that a good seed-bed is made after liming a portion which appears slightly acid under the litmus test and putting on and disking in about four hundred pounds of fine-ground bone to the acre. About September 1st I expect to sow twenty-five pounds of timothy and fifteen pounds of redtop, mixed, to the acre, expecting to get a growth well started before winter. The following spring (1913) I will add two hundred pounds of nitrate of soda and one hundred pounds of muriate of potash per acre, and each succeeding year will add, in addition to these two chemicals, two hundred pounds of acid phosphate. The soil is naturally moist and we average forty inches or more rainfall. It is quite necessary, also, for me to want hay. I have no way to supply barn-yard manure for a top-dressing or to build up the soil. I see no reason why I should not expect a good hay crop in 1913 by following this plan.

"Would you grow cow-peas or buckwheat next season? I am afraid weeds would get the start on clover. How would you plant these and in what quantities?"

If this land could have been plowed earlier this fall—by September—and rye sown for a cover crop as a means of increasing the vegetable matter by plowing it down in the spring, some time and fertility as well would have been gained.

Sowing cow-peas in this northern latitude cannot be recommended, for, if the season did not prove warm and unusually favorable, a small growth would result. The cow-pea is a warm-weather plant and is not a sure crop as a rule much north of the fortieth parallel. The cool spring and summer days often prevailing in New England do not favor the growth of cow-peas. Buckwheat, where a good growth is made, will improve the mechanical condition of the soil by loosening it and smothering the weeds, but it does not furnish any great quantity of vegetable matter when it decays.

Unless fields are badly infested with quack grass, Canada thistle, or similar weed pests that are difficult of eradication, the seeding of clover and timothy with a light seeding of a nurse crop, barley or oats, whichever does the best on the land, could be advised. To seed in this way next spring, rather than to grow buckwheat or other crop to plow under immediately, probably would be best. Over one-half bushel per acre of early oats (the early Champion is a good variety for the purpose) or two bushels of barley to the acre for the nurse crop should be sown. Unless the land has very good drainage, the oats will be safer.

With the nurse crop might be sown eight pounds of Mammoth clover, four pounds of alsike clover, eight pounds of timothy, six pounds of redtop. A week or two before sowing the seed a dressing of lime might be supplied to the entire field, putting most where the soil acidity seems greatest.

For a fertilizer, a mixture of nitrate of soda, two hundred pounds; sulphate of potash, one hundred and fifty pounds, and acid phosphate, one hundred pounds, per acre, would work well.

No doubt it will be better to seed for hay with a nurse crop and depend on the large portion of clover to furnish soil-improvement. In 1913 the grass may be cut early, and the heavy crop of after-growth that you will secure by means of another application of fertilizer in the spring of that year should be plowed down.

Then in August a cover crop of rye and turnips, or perhaps rye and winter vetch, may be sown, for plowing under in the spring of 1914. The soil should be in first-class condition to seed for permanent hay production if the culture has been what it ought to be.

The crop of oats and barley next summer and the crop of hay in 1913 should pay for the expense of the cropping, even if the hay is not commercially so valuable as it would be without the clover.

Hard and fast rules about fertilizing cannot be made. Basic-slag meal may prove preferable to the acid phosphate, or "floats" may be of more benefit than either as a source of phosphoric acid, together with the lime which it carries.

B. F. W. T.

Curing Cow-Peas

FOR a long while I was very much of the opinion that you cannot dry cow-peas enough to mow away without first putting them through a sweat, until some twenty years ago, when I came across an article on cow-pea hay, credited to Professor Massey of the North Carolina Agricultural and Mechanical College, which read about as follows:

"Let your peas lay as cut, if possible, until dry enough to put in barn, as handling them is liable to shatter off the leaves. To test for proper condition for mowing away, twist the stems tightly in the hands, and if no moisture appears, they are ready to haul in. No matter how hot they get, never disturb them after they are once stored, as letting in air when hot and damp from sweat will cause blue mold."

Knowing Professor Massey's reputation as a cow-pea expert—probably the best in the whole country—I could not believe that the article had run properly credited until I had verified it by personal correspondence. Since then I have followed the course outlined above and have never failed to have my hay come out bright and free of mold, though I have sometimes had it so hot that spontaneous combustion seemed imminent.

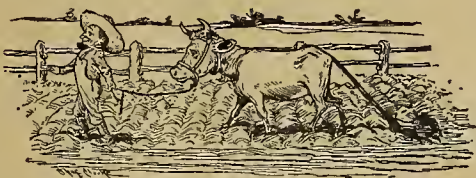
I generally work it into windrows as it is easier turned in case of a sudden shower, and if heavy rain threatens I sometimes cock, but whenever I cannot wring moisture from the stems I house it as soon as possible. Professor Massey says in one of his later articles on the subject, "the tighter the barn, the better," but I have succeeded well here under our Texas conditions by storing in an unchinked log building. R. M. TAYLOR.

Odd Crops in Odd Places

IN ORDER to fill in some of the odd places on our Texas farm, I thought I would cast about for a crop seldom used. I first planted field-peas to sell green, but they were not profitable. Next, I wanted the men folks to plant cashaws, but they could not find time to plant them early. I wanted them planted early, so I myself took them to a slough in the field and planted them in rich, moist dirt all along the sides, taking care not to plant too close in the hills. I knew the vines would grow very long, which they did. My success was pleasing. The cashaws were early, nice, large and prolific. We ate many and gave away dozens and sold about sixteen dollars' worth. These cashaws were grown on land that would not have been used for anything else.

I saved a lot of seed, but did not try to sell any. MRS. DORA GRAYBILL.

EDITOR'S NOTE—"Cashaw" is the name used all over the South and also by many seedsmen for the Crooked-Necked Pumpkin. This pumpkin does not differ from the ordinary pumpkin so much raised in the North, with the exception of its crooked neck and long, gourd-shaped fruit.



A harrowing tale

Get Rid of Smut

A TEXAS reader inquires about the treatment of seed-wheat for smut.

There are two kinds of smut, the stinking smut and the loose smut. The former makes the grains larger than is natural, and affects them so as to make them brittle and offensive in smell. The latter is the kind that leaves the head bare of everything by harvest. The stinking smut may be prevented by the formalin treatment, in which each bushel of seed is treated with a gallon of a mixture of formalin and water: a pint of formalin to forty gallons of water. Sprinkle the mixture on the pile of seed-wheat, and mix by shoveling until every grain is wet. Let it stand overnight covered with sacking. Spread and dry until in condition for drilling. Spray drill and sacks before using to prevent reinfesting treated seed.

Loose smut is less common in wheat and authorities are not yet agreed that an effective treatment is available. Loose smut in oats is preventable by use of the formalin treatment as used for stinking smut in wheat. B. F. W. T.

Don't store too much damp grain in a bin. Spread it out and let it dry.

Sorrel is an indication of acidity in the soil. To remedy this, apply in the fall a liberal five hundred to six hundred pounds of basic slag to the acre. This will keep down the sorrel and greatly improve the fattening and milk-producing qualities of the pasture.

The sugar-cane, known in Louisiana as the ribbon cane, is being successfully grown in this vicinity (El Centro, in the Imperial Valley of California). It is not grown from seed, but the joints, or eyes, of matured canes are placed in rows and covered with soil.





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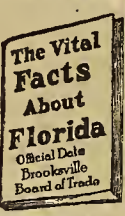
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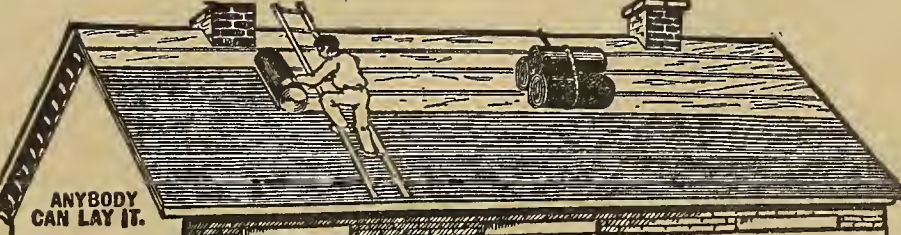



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(Just beginning in THE AMERICAN MAGAZINE.)

THE first chapter of La Follette's Autobiography appeared in the October AMERICAN MAGAZINE, and called forth an immense outpouring of letters, telegrams and newspaper comment.

United States Senator Bristow of Kansas writes:

"I think the first chapter is great. I wish every American citizen could read it. It would do him good."

Louis D. Brandeis, the great constructive Boston lawyer, writes:

"It is a story of absorbing interest. La Follette's character is simple, yet is so often misunderstood. Sometimes he is called intolerant; but he is tolerant of everything save of wrong done to the people. Sometimes he is called a demagogue and is declared insincere; but it is by those who cannot conceive his passionate love for the people and his faith in them. The reader of his Thirty Years' War for the people against privilege will learn of his high constructive statesmanship, of his justness to the interest which he overcame, and of his efficient administration."

James R. Garfield of Ohio, former Secretary of the Interior and son of President Garfield, writes:

"I have read the first chapter. It ought to do a great deal of good, not only in making the people understand La Follette, but also in encouraging men in other states to make the progressive fight."

John M. Nelson, United States Congressman from Wisconsin, writes:

"Every line of La Follette's Autobiography is thoroughly suggestive of the man. His story is exceedingly interesting."

G. W. Norris, United States Congressman from Nebraska, writes:

"This story is exceedingly fascinating and increases my affection for the little fighting Senator to whom the progress and advancement of liberty and justice owe so much. I wish the story might be read by every citizen."

The Chicago Evening Post says:

"The first chapter promises a narrative of real events as interesting as any of the political fiction which has been thrust upon the public in recent years."

The Philadelphia North American says:

"Americans will not fail to read a remarkable periodical offering, the Autobiography of La Follette. The voice of the man from Wisconsin is not longer one in a wilderness. He is a power in the politics where once he was a joke—at least, numerous fools so considered him."

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"I have read the first chapter of La Follette's Autobiography with very great interest. Accurate in its statements of facts, novel in the arrangement of ideas and incidents, simple, rapid and clear in its accounts of leading tendencies, it is a splendid introduction to the story of the development of the Progressive movement."

The Right Rev. Charles D. Williams, Episcopal Bishop of Michigan, writes:

"The first chapter of La Follette's Autobiography is an intensely interesting human document. The story of the man's life and the incidental revelation of his character are fascinating, but of still deeper interest is the insight the story gives into the inner methods of our politics and the origin and inspiration of the new progressive movement."

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THE AMERICAN MAGAZINE

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GARDENING

By T. GREINER

Vegetarians are Not Exempt

IHATE to admit that it is possible for me, the near-vegetarian, to be sick. I have just had to pay the penalty for an over-indulgence in the good things that garden, orchard and vineyard offered all season long in so great and tempting variety and abundance. Usually it is not so risky to eat a little too freely at the regular meals of the natural foods, the products of the garden, as of meats, fried and greasy things, pastry and sweetmeats. The trouble, however, and the greater danger, seems to be that grapes, peaches, prunes, apples, pears, tomatoes and melons, ever within easy reach, tempt us to eat of these things freely between meals, thus refusing to give our stomachs the chance to have thoroughly done with one load when another is piled on top of it. I am "cutting out" this eating fruit and other delicacies between meals, and restricting myself to the regular meals, preferably two, with perhaps an apple, raw or baked, in the evening.

Sweet-Corn Fodder

This morning, going through my sweet-corn patches where "the boys" have cut and shocked the stalks, I found some of the shocks carelessly tied, or not tied at all, and many torn to pieces by the wind. The fodder is as valuable to us as were the ears, especially in these times of high hay and grain prices, and we cannot afford to leave the stalks lying around loose exposed to the fall rains. When hauling corn-fodder to the barn for the cows, we first gather the loose shocks and see to it that those remaining in the field are securely tied. They bear watching right along, however. High winds are liable to tear some of them to pieces. Tall, weedy grasses make very good and substantial bands. Where the land has been kept very free from weedy growths, however, we use common binder-twine. In short, we try to save every bit of fodder. At this time, when getting the stalks ready for feeding to cows, I am often astonished to find so many and so nearly cured nubbins and ears still on them. And how my fowls enjoy this sweet ration!

Fall Spinach Now Ready

From now on and during the balance of the fall we shall have a generous supply of spinach. An occasional mess of it will have a happy effect in helping to regulate kidney and bowel action. I also like the taste of it, and much more than the stalks or leaves of the much-praised "Swiss chard." The fall has been somewhat dry, yet the spinach has made good growth and, stimulated by a late dressing (light) of nitrate of soda, it will give a big leaf growth. Nitrate of soda applications usually have this effect on spinach in a particularly marked degree, and should not be neglected if this chemical can be had without much trouble. I have never made such a glaring success of spinach sown in late fall for spring use, but I always sow a little seed, and manage to get a mess or two. In my estimation, it is superior to any other spring greens.

What About Growth?

We have varieties of table-beet and of early radishes that make a comparatively small amount of top and a comparatively early and good-sized root. There may be particular "quality" in the foliage. It is not always the largest stomach that has the greatest power of digestion. Usually, however, the condition of the growth above ground is a very good indication of what goes on below ground. I have seen potatoes produce an excessive and rank growth of vines with hardly a sign of tubers at the root. But I have never seen a big hill of nice tubers growing without a fair-sized and perfectly healthy top. The rank top growth, abnormal in itself, was produced by abnormal conditions, excess of nitrogen, shade, etc. It is by no means a healthy development, and will tell the expert at first glance that little is to be expected in the way of tubers, just as much as the strong, healthy top at time of maturity will tell him of the big yield in the hill, or as the dwarfish, sickly tops of another will tell him of the few and small potatoes below.

I have just learned how little there is to a man when his stomach refuses to work. His head may be all right; his heart and kidneys and bowels may be in good shape. But when the stomach is on a strike, the whole person is down and out. The leaves are the stomach of the plant. The fluid nutrients are brought up from the roots, worked over by the leaves and returned, in part, to the roots to feed them, or to be stored, for future use, in tubers, bulb, bud formation or root extension. Without this office of the tops or leaves, there can be no further growth of root, bulb or tuber. The plant is "down and out" until new top growth is made, and if this top growth is

prevented for any length of time, the roots must die. This explanation should answer, almost without further addition, three questions which I am asked to reply to by an amateur grower in Indiana, namely: (1) "Should we let the asparagus shoots grow after the close of the cutting season or keep them cut?" (2) "Will the bending over of onion-tops surely make the bulbs in the ground grow larger?" (3) "Will cutting back potato-tops after blooming cause the potatoes in the hill to grow larger?"

Nature has not intended that there should be any antagonism between top and root growth in any plant. Both are essential to the plant's life and welfare. One helps the other.

It must always be the gardener's first aim to keep the stomach of the plant, the leaves, in normally healthy condition and thrift, neither exciting it by undue stimulation, nor weakening or reducing it by undue mutilation.

Bearing these principles in mind, therefore, we let the asparagus-stalks grow just as long in the fall as they will, in fact urge the plants to make as much growth as possible by manure or fertilizer applications made right after the cutting season, and only cut the tops when they show, by getting yellow, that they have completed their growth. Then off with them!

Bending, rolling or breaking the onion-tops over in the fall, or at approach of maturity, may hasten the ripening process, but it will make the bulbs larger only to the slight extent that a part of the top may be absorbed by the bulb. But cutting the potato-tops back after the blooming season would be about as foolish a piece of business as any gardener could possibly engage in.

Kale Among the Beets

Kale which was sown in some of the vacant spots in the mangel patch has done very nicely and is now large enough that we might have had some kale greens for some weeks. But it is not at its best until it has been exposed to quite severe freezing. Besides, I find it badly infested with gray cabbage-lice. The plants must be sprayed at once with one of the various soap or kerosene emulsions or a solution of tobacco-extract. This must be thoroughly done, as the curly leaves offer so many hiding-places for the insects. The plants being high, however, they are more easily sprayed from underneath than cabbages.

That Aching Void

WHEN he began his dinner, the little boy declared that he had an aching void in his stomach.

When he finished, he groaned. "What's the matter, son?" asked the father.

"Well," replied the little boy, "the void's gone, all right, but the ache is still there."

Junco

THE common complaint, "that all sparrows look alike," cannot be said of the Junco or slate-colored snow-bird, for in habits only, and not in dress, does he resemble the ever-present sparrows. His habits, size and short, thick bill are decidedly "sparrowy," but not his colors. The upper parts, throat and breast are slate; underneath and outer tail feathers, white; the latter are seen best when the bird is flying.

In the States, the bird is a winter resident, coming with the October frosts and departing again with the advent of the warm season in early April.



They are so numerous, frequenting weedy fields, roadsides and the border of the woods, that they cannot very well be overlooked.

They associate with the tree-sparrows, and the two species are usually found in flocks of various sizes. While they are not the singers that some of the other sparrows are, their common note, a sharp "click," is quite musical when uttered by a number of birds in unison.

According to the Biological Survey, "The effect of the Junco during its stay on agricultural land is of unmixed benefit, for few other sparrows eat as many of the noxious weed-seeds as the Junco."

H. W. WEISGERBER.

Farm Notes

Landlordism—Food Shortage

AMONG the letters of inquiry I have received recently are several from subscribers who live in cities, and they are asking why the price of beef, pork and poultry is so high. Also, why farmers are demanding such outlandish prices for eggs. These people are honest in their inquiries. They think there is something wrong with the tillers of the soil and they want to learn what it is. One business man asks me why farmers quit producing beef and pork. What is the matter, anyway? He says: "I come to you for information because you are right among the farmers and ought to know."

Farmers partly abandoned pork and beef production for several reasons. The principal one is because corn has been worth more in market as grain than as pork or beef. When corn is worth as much as pork and beef, farmers will not go to the trouble of feeding it to hogs and cattle. They have run the risk of producing the grain, and they do not care to run another risk of turning it into meat. The loss of a single animal that has been fed up to market condition, or very near it, would cut a big hole in their profits, and as the grain is worth as much on the market as the meat, they sell the grain and avoid the work, trouble and risk of turning it into meat.

New Problems Arising

Some years ago, I told readers of FARM AND FIRESIDE that we had seen the last of cheap corn. With cheap corn went cheap meat. We will have cheaper meat, I think, than we have just now, but I doubt mightily that it ever again will be as cheap as it has been in the past.

There are several new problems before the farmers of this country, and they will have to be solved sooner or later. The old haphazard methods of managing and feeding stock will have to be changed to those of a more intensive, sanitary and safe order. More stock—cattle and hogs—can be raised and fattened than ever has been done before, but many men will handle a few head, instead of one man producing a large number.

The chief obstacle to a properly balanced system of agriculture is landlordism. Landlordism is not so bad if it is intelligent; but, unfortunately, the landlordism of this country, taken as a whole, is far from being intelligent. The owner of the land wants immediate returns—the largest possible—and he is constantly urging his tenants to wring all possible from the soil. He will consent to clovering or other means of fertilizing only when he is compelled to by repeated crop failures. And one of the worst features of his rule is his opposition to long leases. In some of the old countries leases are made for ten to more than twenty years, and cannot be terminated before the lease expires by any cranky whim of the landlord, but only by a court and for persistent violation of the plain terms of the lease.

A tenant farming under a long and liberal lease is quite as much interested in conserving fertility as the owner, because it means better crops and more profit for him. It is unfortunate that landlordism is so rapidly increasing in this country, because it is a system that does not build up a sturdy, reliant yeomanry that makes a nation great and powerful, but a servile class that has little interest in public affairs other than to keep down taxation. I hardly think that landlordism in this country will long keep the pace it is going now. The plain people have the making of the laws and ere long there will be some mighty changes brought about with respect to the land.

Feed Some Steers

At present we have to deal with conditions as they exist. As the price of corn has advanced farmers have decreased the number of animals kept, and there is no denying that there is a shortage, but in the matter of hogs it will soon be made up, because they can now be fed corn at a good profit, and farmers are doing their utmost to increase their herds. Tenant farmers have very meager facilities for raising and feeding cattle, therefore the shortage will have to be made up by farmers who own their farms, and for this reason the shortage will be made up slowly. I am well satisfied, however, that owners of farms will soon discover the fact that exclusive grain-growing is destructive to fertility, and a ruinous policy. Farmers will find that they can raise and feed a few head of cattle with profit to themselves and great benefit to their land, and I feel sure that the time is not far distant when every farm-owner will be turning off a few good beefs each year. Then the supply of beef will be steadier than in past years.

FRED GRUNDY.

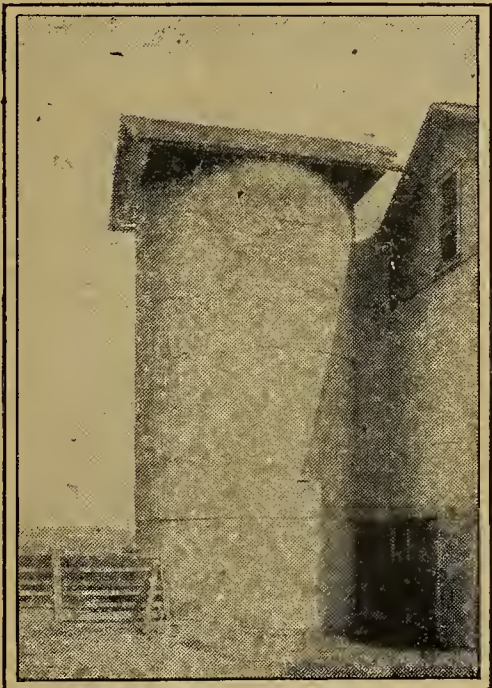
A Giant Sycamore

THE engraving of the sycamore-tree in the June 10th issue calls to mind the largest sycamore-tree in Indiana. This tree stood on the banks of the old Erie Canal on the farm we own. All cal-men said it had no equal from Vincennes to Lake Erie.

At the ground the tree was sixty-three feet in circumference—it was hollow, and on the west side there was an opening some eight feet wide and extending fully ten feet from the ground. One could shoulder a twelve-foot rail and turn around in the hollow of the tree. We removed all loose material from the hollow, put up doors to the opening and for several years we kept hogs and calves in the hollow through cold, stormy weather.

In 1870, the immense top, then much decayed, became dangerous to stock and it was thought best to remove this old giant—this we now know was a great mistake. Preparatory to its removal a fire was started in the hollow which burned for several days, which consumed all the dry matter and reduced the width of the shell to about three feet. We then began sawing and chopping around this shell until it became dangerous for one to work on the inside. Chopping was continued until the tree was felled. For thirty feet the diameter was fully thirteen feet. It required several years to dispose of this large trunk. Those were not days of photographic art, so this grand old tree exists in our memory only.

About twenty rods from this sycamore stood the largest black-walnut tree in this section—this tree was six feet in diameter at the stump. Two saw-logs, one ten and the other twelve feet long, were taken from the body of the tree. At this height it formed three large branches which gave two logs each, or six in all; the smallest of these six was equal in size to the first cut of any ordinary walnut-tree. We sold that tree to a lumberman for five dollars. The lumber that tree made would now pay a large part of the price of the farm. J. H. HAYNES.



A solid concrete silo, 35 feet high and 14 feet clear inside, built without reinforcement of any kind, by the farmer and his farm help. Cost, about 250 dollars

Bees a Success in Kansas

MY FIRST swarm of bees came to me unexpectedly one morning in June, some five or six years ago. A suitable box with cross-pieces nailed in it made a very satisfactory hive for this first swarm. I never tried to hive bees before, but I had seen it done by others, and so accomplished the work successfully. Since that they have been my special care. Every year I got new swarms, but after having ten concluded that was enough for me to care for besides my other work. I, therefore, sold all from that time on, and they brought profitable returns. There is good money in this work, for the expense is comparatively nothing except for the hives. The bee-keeping business can be easily managed by the women folks, and does not require much attention.

MRS. C. C. BURK.

Of National Importance

The Social Center Association of America, Madison, Wisconsin. October 28, 1911

National Dairy Show, Chicago, Illinois. October 26—November 4, 1911

National Creamery Buttermakers' Association, Chicago, Illinois. November 1-3, 1911

American Land and Irrigation Exposition, New York. November 3-12, 1911

National Horse Show, New York City. November 18-25, 1911

Horse Show, Chicago, Illinois. November 27—December 2, 1911

American Society of Equity, Chicago, Illinois. December 5, 1911

International Live Stock Exposition, Chicago, Illinois. December 2-9, 1911

National Mid-Winter Sheep Show, Omaha, Nebraska. December 13-16, 1911

The Red Ball Means Years of Quality and 8,000,000 Wearers

Every pair of the famous "BALL-BAND" Rubber Boots and Arctics and All-Knit Wool Boots and Socks is trade-marked with the RED ball.

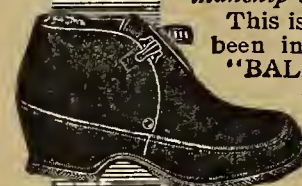
Only the highest grade of materials and workmanship are allowed to receive this trade-mark.

This is the "BALL-BAND" standard. It has been in force from the very beginning.

"BALL-BAND" footwear has changed only in one direction—for the better.

This is why it has won more than eight million wearers—why these millions will not be satisfied with anything else.

"Ball-Band" Arctic We could save one million dollars a year by putting less quality into "BALL-BAND." The loss would not appear on the surface of our footwear.



But in all the years this company has not, nor will it ever cheapen the quality of its goods to meet competition.

Look for the RED BALL sign when you go to buy rubber footwear. Many dealers display these signs in their windows or store fronts for the guidance of the constantly increasing number who are asking about "BALL-BAND" footwear.

Whether you see the sign or not, you are sure to find the RED BALL trade-mark on all "BALL-BAND" goods. Insist on seeing it. It is your protection. Forty-five thousand dealers in all parts of the country sell "BALL-BAND" goods. If your dealer cannot supply you, write us, mentioning his name, and we will see that you are fitted.

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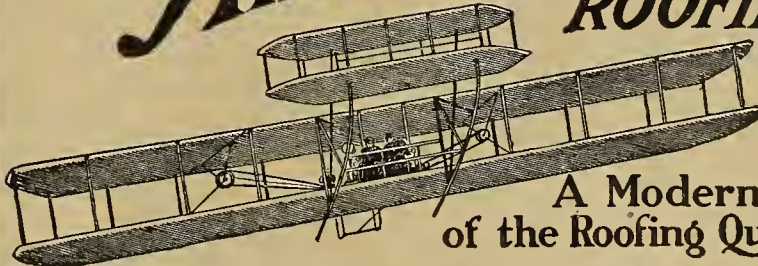
Mishawaka Woolen Mfg. Co.

Mishawaka, Ind.

"The House That Pays Millions for Quality"

"Ball-Band" Coon Tail Knit Boot

Amatite ROOFING



A Modern View of the Roofing Question

Tin makes a good roof if you paint it.

Canvas makes a good roof if you paint it.

Any felt makes a good roof if you paint it.

Even paper makes a good roof if you paint it.

But Amatite makes a good roof if you DON'T paint it.

On a painted roof, the paint is what gives the real protection. The rest of it has no function except to provide a smooth unbroken surface with no seams or cracks, to which the paint can be applied. Anything which has strength enough to keep the wind from blowing it away or the rain from beating it in, will be waterproof if you use paint enough.

Amatite Roofing, however, needs no painting. It is a real roofing—

a roofing that can be left out in the rain without the slightest damage.

The wearing surface is mineral matter embedded into a heavy coating of pitch and never needs painting.

We shall be glad to send you a sample of Amatite free of charge if you will send a postal request for it to our nearest office. The sample will show you what the mineral surface is like.

Everjet Elastic Paint

A lustrous carbon black paint, very cheap, very durable—for protecting all kinds of metal and wood work.

Barrett Manufacturing Company

New York Chicago Philadelphia Boston
St. Louis Cleveland
Pittsburg Cincinnati
Kansas City Minneapolis
New Orleans Seattle
London, England





Loading carriers with asphalt at Trinidad Lake

Go to the bottom of the roofing question—if you want to save money on your roof.

Don't be caught by mere looks and mysterious terms. Find out what the roofing is made of.

And the time to find out is before you buy—it is often costly to find out afterward.

Genasco

the Trinidad-Lake-Asphalt Roofing

is made of *natural* asphalt.

The difference between natural asphalt and manufactured or artificial "asphalts" is great. Natural Trinidad Lake asphalt contains natural oils which give it lasting life. They are sealed in Genasco and stay there to defend it permanently against rain, sun, wind, heat, and cold.

Artificial asphalts are residual products. Same way with coal tar. They are mixed with oils which makes them pliable for a while, but the oils evaporate quickly when exposed to sun and air; they leave the roofing lifeless, and it cracks and leaks.

When you get Genasco you can be sure of roofing that lasts. And roofing that lasts is the only kind worth having.

The Kant-leak Kleet is the lasting waterproof fastening for seams—prevents nail-leaks, and does away with unsightly cement.

Ask your dealer for either Genasco mineral or smooth surface roofings with Kant-leak Kleets packed in the roll. Fully guaranteed. Write for the Good Roof Guide Book and samples.



The Barber Asphalt Paving Company

Largest producers of asphalt, and largest manufacturers of ready roofing in the world.

Philadelphia

New York San Francisco Chicago

Cross-section Genasco Model Roofing	
	Crushed Quartz
	Trinidad Lake Asphalt
	Asphalt-saturated Wool Felt
	Trinidad Lake Asphalt
	Asphalt-saturated Burlap
	Trinidad Lake Asphalt

Farmers' Handy Wagon at a Low Price

Absolutely the best wagon built for every kind of heavy hauling. Low steel wheels, wire tires. Will last a lifetime without repairs.



EMPIRE MFG. CO., Box 68-L, Quincy, Ill.



White Lead on the Farm—Vehicles

You can't afford to neglect painting your farm wagons. A few small cracks will let in the weather, the wood will begin to rot, the timber to weaken, and a break down will follow. Neglect ruins more wagons than over-weighting.

Good old-fashioned paint made of

"Dutch Boy Painter" Pure White Lead

and pure linseed oil is what wagons need. It holds to the wood like a nail and fills every crack and crevice. The surface of the wood is protected against moisture until the paint is actually worn away.

Our Free Painting Helps. We will send you free on request color schemes and miscellaneous painting instructions. Ask for Helps No. 1647.

NATIONAL LEAD COMPANY
New York Cleveland Chicago St. Louis Boston
Buffalo Cincinnati San Francisco
(John T. Lewis & Bros. Co., Philadelphia)
(National Lead & Oil Co., Pittsburgh)



Headwork Shop

A Feature in Farm and Fireside for Farm Folks to Follow

Folding Harrow

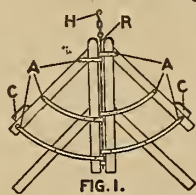


FIG. 1.

THE handiest thing I have handled for some time is a harrow that does not have to be loaded. All that is necessary when you wish to go from one field to another is to take hold of one side and turn it over on top of the other, and then turn both pieces on their edges. The harrow then rests on the cleats shown in the drawing. The iron on the front end of the two parallel pieces protects the front end, and the harrow is then ready to travel on any kind of a road. The irons can be made of old wagon-tires, except the long rod (R), which runs full length of the harrow.

R is a three-fourths or a one-inch rod running through the harrow and connecting the hinges on the irons (A), each iron being about two inches wide and one-fourth or three-eighths inches thick and having the end turned back, forming a socket like the hinge on a gate. H is the hook to which the doubletree is fastened by its clevis. The cleats (C) are pieces of wood about one foot long and two and one-half or three inches square bolted on the side so that the harrow can be turned on its back and ride. The cleats and the ends should be iron so as to prevent wear and to keep them from splitting.

SHERMAN SLOTER.



FIG. 2.

Float Valve

NOT wishing to draw water from the pond for my stock nor wanting to let them to it, I planned this device: Place a pipe about two inches in diameter through the dam of a pond, then put an elbow on the pipe, projecting down into trough about three inches. Then get a light board six inches square, and to this nail a cone-shaped piece of wood which will just fit into the bottom of the pipe. Put a staple in each corner of the board and fasten it with a fine wire over top of pipe. Leave it so that it can drop about an inch. When the trough fills up, the float raises and stops the water, but drops again as soon as water is used.

VERNON CANTER.

Garden Hoes

HERE are two splendid hoes for the garden or vineyard. For No. 1, take a ply from an old buggy-spring. Have it made any length desired, flatten and sharpen the ends. Have two holes punched about one inch apart in center to fasten to handle. Take two flat four-inch pieces of iron, round at one end with threads, so as to bolt the spring to the handle. Punch two holes through the flat irons; also bore two holes through handle. Put two small bolts through. The round ends of irons go through the holes in spring. Fasten with nuts.

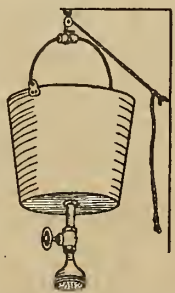
No. 2 is made exactly like No. 1, except that one end of spring is split and spread so as to make a kind of fork. The flat ends of the fork are sharp and make an extra good hoe.

NED KERR.

A Fine Shower-Bath

HAVE a plumber fit a piece of iron pipe (about four inches long) with a valve, same as used with steam-radiators, into the bottom of a large galvanized pail. On this solder a sprinkler top. Get a suitable length of stout rope, tie securely to the pail and pass through a pulley which is fastened to the ceiling or beam overhead. Put some loops in the rope and fasten to a hook on side wall. You can have your bath hung high or low. The loop in the rope will keep it from slipping through the pulley when you are filling the pail. The valve regulates the flow, making it fast or slow. Hang this over a bath-tub or ordinary wash-tub. The outfit costs from \$1.25 to \$2, according to size and materials. Water runs from two and one-half to four minutes, depending on size of pail. We have found this a delightful and practical bath, either hot or cold. A small amount of water goes a long way, making it especially desirable for the farmer who doesn't have a water system.

C. S. HILLERY.



Care of Paint-Brushes

EVERYWHERE I go I see dried-up paint-brushes. I have brushes which I have had for ten years, used in all kinds of paints and varnishes, and they are just as soft and pliable, even if the bristles are worn shorter.

When you are sure that you are going to use your brushes several days in succession, it is well enough to hang them in water just deep enough to cover the bristles. But the way to clean them to keep them is to first work and shake out what paint you can, then take a little kerosene in a dish and work out more, repeat the operation with more kerosene. Then take hot water (not boiling) and hard soap and, after you have thoroughly washed the brush and shaken out what water you can, just work a little of the dry soap through the bristles and smooth the brush into shape and lay it away, and it is ready to use at any time. The most important thing of all is to buy good brushes.

HOWARD C. CLOSSON.

The Cow Does Not Kick

DRAW the rods out, lead the cow in from behind, place the rods in position again, tie the cow to manger-post and go to milking. The cow can't kick. I am using one of these devices and find it a pleasure to milk now, when I was always in fear before.

M. L. SUTHERLAND.



A Gate-Latch That Will Hold

THE gates on a stock farm should be so arranged that they will swing shut, and also should have a latch that will catch and one that will hold them secure when shut. The one in the drawing is easy of construction, and may be fitted to any gate made of slats running horizontally. The dotted lines show the position of the working parts when the catches are withdrawn. The catches are held in the notches by means of a coiled spring fastened to the center upright pieces on the gate. The drawing is self-explanatory.

J. W. GRIFFIN.

Hang Up the Hogs

THE accompanying sketch shows how I hang my hogs without a lift. Get a good, heavy post (A) fourteen feet long. Nine feet from bottom of post (B) make two mortises, two by four inches. Take two two-by-fours, four and one-half feet long, and put them in mortises (B) for cross-arms. Bore a hole at D, six inches deep, in end of post; take a good, stiff pole (E) fifteen feet long; bore a hole three and one-half feet from end of pole at D into which to drop bolt or pin (F). Dig a hole three feet deep and set post, and when you butcher, take a chain (G), put to end of pole and a rope (H) to other end of pole. Take hold of chain, pull down and hook on to gammon stick, then take hold of rope and pull down, and up comes the hog without a lift, and you can swing it clear around the gallows.

F. B. BRYAN.

Stops the Kicking Horse

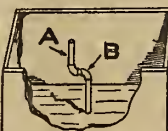
TO stop horses from kicking at each other when standing in the stable, fasten a piece of chain, about ten or twelve inches long, to a small strap (a hame-strap will do as well as anything), and buckle the strap just above the horse's ankle. Leave this on, while in the stable, for a few days, in which time even the most obstinate kickers will be cured.

HARRY S. RIGGS.

Water Does Not Freeze

THE pipe (A) connected with the pumps is fitted with elbows and short horizontal pipe as shown. In freezing weather the upper part of the pipe (A) may be corked and turned down into the water, where it will not freeze. The elbow (B) forms the joint.

M. W. RICHARDSON.

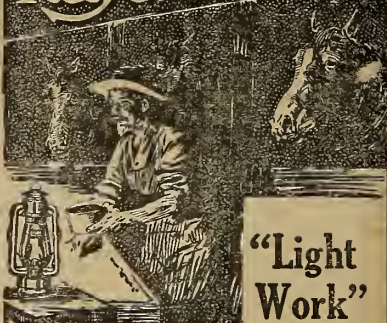


Nests Can be Cleaned

IN ORDER to make "easy to clean" nests, first take a sixteen-inch board (A), one inch thick and whatever length you desire to make your nests. Then fasten hinges (B) on bottom side and fasten bottom to wall with hinges. Then make your partitions twenty by sixteen inches by twelve inches deep. Put a four-inch board in front of nests, carved out slightly as in illustration. The partitions, top and bottom (A), are fastened to nests with leather straps (C) hooked on nails. Another four-inch board



Rayo LANTERNS



"Light Work"

There is no needless delay about putting the horses up for the night and getting into your own comfortable home when the work is lightened—and lightened—by a Rayo lantern. Rayo lanterns give such a strong, steady light you can put your hand on what you want in a second.

Rayo lanterns are the best and brightest on the market.

Made in all kinds of styles and sizes, to suit any use.

Finest material and workmanship; most light for the oil consumed; will not blow out.

All Rayo lanterns are equipped with selected Rayo globes, clear, red or green, as desired. Wicks inserted in burners, ready to light.

Dealers everywhere; or write for descriptive circular direct to any agency of the



Standard Oil Company
(Incorporated)

AGENTS MAKE \$30 PER WEEK

SEE THAT SHUTTLE

This Awl sews a lock stitch like a machine. Just the thing for Repairing Shoes, Harness, Buggy Tops, etc. Sew up Grain Bags, Tents, Awnings and Wire Cuts on Horses and Cattle. Makes a neat, durable repair and quickly, too. Has a diamond point grooved needle, a hollow handle, plated metal parts, a shuttle, and a bobbin holding 24 yds. of best waxed linen thread. No extra tools needed. Can be carried in the pocket. Special discounts to agents. A. Ferrine says "Sold 9 on way home with sample." W. Spenser writes "Sold 11 first 4 hours." Reg. price \$1.00. Complete sample with 1 large, 1 small, 1 curved needle, a shuttle, and a bobbin of thread sent postpaid for 60c., 2 for \$1.00. Get one, keep it a month or so, mend all your Harness, etc., and then if you are not satisfied return the Awl and we will refund your money. Send quick for sample and instructions.

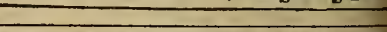
ANCHOR MFG. CO. Dept. 1030 DAYTON, O.

Will Do Everything but "Buck"

Here is the engine to do your work. Uses only a gallon of gasoline a day. Pumps all the water the average farm uses, for a cent a day. A hundred or more economies in work possible when you have a

Sturdy Jack 2 H. P. Pumper

Air-cooled or hopper-cooled. Write for our four engine books and learn how to judge an engine. Don't be fooled with cheap engines that have to be propped up. Jacobson Machine Mfg. Co., Dept. O, Warren, Pa.



"Let it Snow! This FLEECE-LINED WOOL UNDERWEAR will keep me warm"

WOOL Underwear is best for all seasons, especially Winter. State Depts. of Health recommend it.

WRIGHT'S HEALTH UNDERWEAR

is pure all-wool woven with a loop-stitch that can't mat after washing—won't close up the air spaces needed for ventilation. Also it is fleeced-lined—won't irritate the skin—is soft and smooth. Perfect-fitting and long-wearing.

Wright's Health Underwear is made in all weights and styles for all seasons. Prices, \$1.00 to \$2.50 for Shirts and Drawers; \$1.50 to \$4.00 for Union Suits. If your dealer hasn't it, send us his name

Send for booklet showing fabrics.

Wright's Health Underwear Co.
62 Franklin Street, New York

(D), which is fastened to partitions, is placed in front of nests for the hens to fly up on before entering the nests. When you want to clean nests, unhook straps (C) and at bottom fall down. I find this an easy way to keep nests clean. E. H. SCHULTZ.

Young Pigs—Cold Weather

OF COURSE, all breeders of swine have some kind of a fender at farrowing-time to keep the sow from laying on her pigs, but the piggies do not always make use of the place. When we realize that there is always a draft next the wall anywhere, we shall not find it surprising. The sketch shows both how to avoid the draft and make use of the natural heat thrown off by the little pigs' bodies. A is wall; BB, studding; CC, foot-long blocks spiked to studding; D, fender of two-by-four stuff; E, board to snugly cover space shut off by fender. As the heat from the pigs' bodies rises, this roof of the fender will not let it pass off, and it will also break up the usual wall draft. With a bed of finely cut straw under it, there need be no fear of losing pigs. They will soon learn where the warm spot is.

G. H. DENISON.

Grade the Apples

MAKE a trough, mounted on legs, with a receiving box as shown in drawing. Cut two holes, one larger than the other, in trough. These holes grade the apples by letting small ones drop through first hole, second or medium ones through second hole, while large ones roll out at end of trough.



The trough must be mounted high enough so as not to tire the operator, for one person will have to keep the large and medium-sized apples out of the small hole and the large out of the medium hole. This can be accomplished best by reaching hand under trough and knocking apples up out of the holes.

RAY MALCOLM.

Double Nail

FARMERS will find many places around the barn where a hook to hang things on will be of great convenience. Instead of buying hooks, use wire nails, and, if driven as shown in the drawing, they will support a very heavy weight. Drive the lower nail first.

HUBERT J. CHIDDIX.

Rat-Proof Rack

SAW a piece of one-inch edging to a length of forty-eight inches, and bore three-eighths-inch holes through it, three inches apart. Cut oak pins six inches long, whittle to fit holes and point each end, then drive half-way through the edging. This will save your seed-corn. While the cobs are still tender thrust on to these points. One rack will hold a bushel of seed-corn on ear. To the lower end of rack put a wire made into hook shape and hang a kettle containing your next year's pumpkin-seed, broom-corn or sunflower seeds. Suspend the entire rack by a loop of heavy wire, twelve inches in length, from the rafters of some shed, and your corn will dry thoroughly and be safe from rats or mice.

CLARK B. MENCH.

Useful Door-Catch

DON'T have your doors blow shut as soon as you open them. Here is a handy device to hold them open. Take an oak strip (C) one by one inches and a foot and a half long. Drill a hole in the center of this and put a weight (B) on one end as shown in the diagram. Then drive a stick (E, about a foot long) far enough into the ground so the door can pass over it, and drill a hole one-half inch from the top. Insert a bolt (D) through the strip (C) and stick (E). Then drive another stick (A) at the end of C just so the latch (C) touches the ground. Drive another stick (F) high enough to stop the door. Brace it with another stick (G) so, when you throw the door open, stick F will not break. All you have to do is to push the door and it presses the latch down and passes over. The weight lifts it up again and the door is caught.

RAYMOND SWANSON.

Saw-Clamp

HERE is a most excellent clamp for sharpening saws. The two V-shaped pieces are set or wedged in the other V-shaped boards, which are fastened on a bench. The saw is placed between the long pieces which holds the saw firm while being filed.

D. CONGER.

A Handy Spring Seat

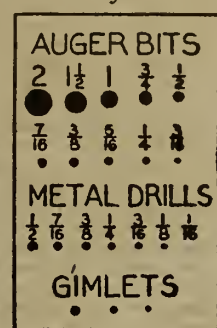
TAKE two boards, one by six inches, and two inches longer than wagon-hed in width, for top and bottom pieces (A and B). The top piece (A) should be made of tough, springy wood. Bolt loosely together at D and E. Place a hlock (C) between A and B so that when sitting on A it lacks three inches of touching B at outer end. Nail C in place and tighten bolts (D and E). Nailing on blocks (F, G, H and K) to hold seat in place completes the job.

This seat is light and handy, as it can be used where the regular spring seat is too heavy to be put on and off the wagon.

HERBERT TOOPS.

Prevents Worry

TAKE a smooth three-quarter-inch board and bore a hole through it with each bit in your workshop. Hang it up near your brace and bits, then, whenever you want to find the proper bit for a bolt, just see what hole the bolt fits, and you will know what size bit to use. I have one of these boards, ten inches wide and two feet long, and it not only saves time, but



gives absolute certainty.

FREDIE I. BUEHLMAN.

Water-Proof Canvas

MELT one pound of paraffin and pour into two gallons of gasoline. Spread the canvas out smoothly and apply the mixture with a sprinker until the canvas will absorb no more. The application must be made out of doors on a bright, warm day and, of course, at a safe distance from all fire.

The gasoline will evaporate and leave the canvas filled with the paraffin, which will render it water-proof. This does not have a tendency to weaken the cloth as does linseed-oil.

COURT W. RANSLOW.

The Hidden Latch

THIS device can be fitted to any ordinary poultry-house, meat-house or corn-crib door, where it is inconvenient to have a padlock to keep out thieves. Have your blacksmith make a Z-shaped piece of strap-iron (A) with movable joint (B). Drill hole through at C to put bolt through and attach to door. Take a wide but square-cornered staple (D), drive it through door and clinch on other side to hold latch in place. Fasten a small coil spring (E) to latch at one end, and the other end fasten to door to pull latch back in place. Then allow a piece of wire (F) to extend down on the inside to the bottom of the door. This allows the latch to be pulled back. The latch must be placed on the inside of the door.

C. C. NEW.

Workable Shovel-Board

THE wagon-hox endgate and scoop-board made by factories are not a success here, owing to the fact that the wagon-boxes have an extension on the rear end.

I have used a shovel-board several years that has given good satisfaction and can be changed from one wagon to another of the same width without much bother. It is very good for corn, coal, cobs, and the like. The following explains its make-up:

AA is a flat piece of iron fastened on outer edge of scoop-board by small bolts, the ends to project about four inches to rest on end of crosspiece under rear of bed.

B is a flat piece in middle to support it and rests on bed. CC are rods to support the board and hook in D, which is bolted on the bed as indicated. If it is desirable to change to a number of wagons, a prop can be hinged at each corner at the rear end.

W. G. LUDY.

Fooing the Mice

THINKING mice and rats could not molest seeds hung on a No. 8 wire, I found, upon trial, that this was a mistake. The following method has proved a puzzle to them. Take tin-can lids and punch holes through in the center with a No. 7 nail. Place two or more of these disks on each side of seeds hung on the wire, and the rodents will not and cannot get at them. The disks turn and the rodents fall to the floor.

J. E. RAISER.

Winners—September 10, 1911

The Headwork ideas receiving the highest number of votes in the September 10th number were:

Keep the Wires Tight . . . M. V. Bartram
It Catches Them . . . Mrs. C. K. Turner
Dry-Weather Protection . . . E. C. Quick

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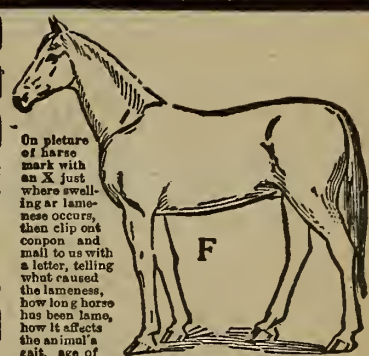


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Be Positive, Know What You Are Doing and know that you are treating the right spot in the right way. Don't disfigure your horse and reduce his market value. Write to us. Get our "Free Diagnosis." You paid good money for him when he was sound. What is he worth to you now, or to anyone else, when he has a Spavin, Ringbone, Thoroughpin, Curb, Capped Hock, Shoe Ball, Sprung Knee, Ruptured Tendons, Sweney, or any one of a hundred different causes of lameness that your horse might be heir to. You know that he isn't worth 50 per cent.,—no, not 25 per cent of his original value.

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On picture of horse mark with an X just where swelling or lameness occurs, then clip out coupon and mail to us with a letter, telling what caused the lameness, how long horse has been lame, how it affects the animal's gait, age of horse, etc.

We will tell you just what the lameness is, and how to relieve it quickly. Absolutely no charge. Write today.

Free Book "Horse Sense"

Send us the Free Diagnosis Coupon, get absolutely free a copy of our book "Horse Sense." Describes and illustrates diseases of horses' limbs, shows correct name for every part of horse and tells valuable facts every horse owner ought to know.

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Ludowici, Ga., Dec. 7, 1910. J. T. COLLINS.

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Sumnerland, B. C., Dec. 4, 1910. R. H. STEWART.

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THE YOUTH'S COMPANION, BOSTON, MASSACHUSETTS.

Garden and Orchard

Winter-Killing

EVERYBODY knows that immature wood is more susceptible to injury than mature, and that conditions which will mature wood will help to prevent winter-killing. The idea that winter-killing of mature wood is directly caused by low temperature is not entirely well founded. If one should, during a very cold spell, break off a branch from a tree, weigh it and keep it under the same conditions that the rest of the tree is in, he would find that it would soon assume a withered appearance. If it should be weighed again, after an interval of ten days, the weight would be found to be noticeably decreased. The course of this decrease is the giving off of moisture. This giving off of moisture by the tree, or transpiration, as it is called, goes on during the dormant season, although not to the same extent as during the growing period. The amount of moisture given off depends upon the exposure to high, drying winds. If the ground freezes deeply, the same withering is observed as in the case of the branch above described, and this condition is called winter-killing.

Some trees have shallow root systems, and others deeper roots. Both roots and branches differ in their susceptibility to injury from cold. In spite of very deep freezing, many trees are able to supply the necessary moisture.

In the case of fruit-trees beginning the winter with wood properly matured, the chief means of reducing winter-killing to a minimum is by preventing deep freezing. In places where there is much snow this may be accomplished by holding the snow as a blanket for the ground. Boards or windrows of straw or corn-stalks or litter of any kind, placed at right angles to the prevailing winds at exposed places, will be found helpful in holding the snow. A mulch of any kind spread over the whole orchard likewise to a great extent prevents deep freezing. The mounding up in the fall, particularly of young trees, is also a protection to the roots. Mulching the tree with straw or manure or some such loose material is sometimes recommended. But, unless the tree has some effective trunk-protector, it is liable to be injured by rabbits and mice, attracted by the mulch.

A. J. ROGERS, JR.

Money in Peonies

DID you ever stop to think how much money could be made by growing peonies for market? The flowers are always in demand, at the city florists', at prices ranging from two to three dollars a dozen. They retail for twenty-five to thirty-five cents each and there is never enough to supply the wants of the buyers. The peonies are fine ornaments for the front yard and when in full bloom stand out as rivals of the choicest roses.

Peonies multiply very fast, making a growth equal to one thousand to one in ten years. They grow from bulbs, set in the fall and spring. September to March may be reckoned on as the transplanting season. One cutting of the root, having a plant shoot, is enough to set in a place. They can stand three feet apart either way. In three years the roots will form big clusters and the plants and blossoms will touch each other.

Clusters of peonies can be divided after the second year. If not taken up and cut apart, the clusters will occupy larger space. I have cut three dozen marketable blossoms from a cluster of peonies, three years old. The original root cost fifty cents and the flowers for that year were worth six dollars at the florists'. The roots were worth much more, for they were ready for dividing into several fifty-cent values.

Peonies are of many varieties and colors. Some of the choicest sorts are white, but many are red or purple. The richest colors come from China and Japan and are sold as the Chinese peonies. They are native in Asia and grow to great size. Some are called tree peonies, because of standing erect and resembling shrubs. They sell at higher prices.

The peony of the florists' windows must not be classed with the old-fashioned "piny" of pioneer lawns. It represents a new cultivated plant, brought to full perfection for commercial purposes. Both belong to the same species, but do not have the same value. Peony roots can be bought of seedsmen and nurserymen for about thirty-five cents each, when sent by mail. Look over the front yard, select a spot and plant it to peonies.

JOEL SHOMAKER.

Anticipation



this dynamite blast. We'll not be long."

ANXIOUS VOICE FROM AEROPLANE—"Look out down there! Can't you see you're just where I want to land?"

PLEASANT VOICE FROM BELOW—"All right! Just wait a minute till we light the fuse to this dynamite blast. We'll not be long."

Selection of Nursery Stock

AN IDAHO subscriber, preparatory to setting out a large commercial orchard, inquires as to the relative merits of different sizes of trees. Bearing in mind that the nurseries sell one-year-old trees two to three feet high, he asks whether the small growth of top in the smaller trees indicates less vitality; also, whether there is a decided preference for budded or grafted stock.

Nurserymen practice the plan of grading their trees according to size and perfection of appearance. The largest, best formed trees are graded as number ones, and those of less rapid growth are classed as seconds and thirds. Those having imperfections, as crookedness, or if misshapen as to top, are placed in the third class.

While number two trees sometimes make equally as good or even better growth than number one, it is better to buy number one trees when buying from a nurseryman of known reliability who will furnish just what is asked for.

Root-grafted stock is met with chiefly in the West, whereas in the East bud-grafting is the usual practice with apples and peaches particularly. Propagations made by root-grafting seem to be hardier and better adapted to the climate of Idaho and the Northwest.

B. F. W. T.

Forcing Rhubarb in Winter

AN OHIO reader wants to know if it would be practical to try to force rhubarb this winter in a shed eight by twelve feet if it is lined with paper and also with a three-inch thickness of old hay closely packed behind strips for about three feet in height.

He intended to excavate about one foot deep and to bank the earth around the outside of the shed and heat the shed with an oil-stove. He says he can get all the roots he will need. The shed is already built and is not used for any other purpose.

This proposition with slight modifications is entirely practical, and there is no reason why it should not succeed nicely. Line the sides with paper as suggested, but, instead of packing with hay to the height of three feet, pack clear to the roof. Do not bother to excavate, as it will not be necessary. Bank from the outside to eliminate danger of surface water running into the shed. Make the roof tight to prevent leakage and cover outside with building-paper or coarse manure and straw. The latter will answer as well.

Cover the entire shed roof and sides with sufficient litter to protect from frost, for the warmer the shed, the less artificial heat will be required. The oil-stove will answer nicely, only surround it with a sheet-iron jacket, say twice or more the diameter of the stove. This will distribute the heat and prevent injury to the plants from the light.

J. E. MORSE.

Fall-Planted Fruits

PLANT apple, pear and cherry trees, as well as European and native plum-trees, in the fall, but wait until spring before planting peaches and the Japanese plum. Buy vigorous two-year-old trees and see them in the nursery, if you can, before you purchase them. Some people seem to have a feeling that things shipped from a distance are better than those secured near at hand. This is all wrong, of course, as applied to garden and farm products. It is much better to buy nursery stock started under conditions similar to those which it will find on your place.

Moreover, the shorter the distance from the nursery to the place where the trees are to grow, the better, for trees are often badly damaged by shipment.

The roots should be cut back to a foot in length, and any injured roots should be cut off smoothly at the end. All shoots should be cut back proportionately and superfluous ones removed. Three or four good shoots to form the head of the tree are all that are needed. The roots should not be allowed to dry out from the time the tree is dug. If the land is very light, the tree may be set a trifle deeper than it stood in the nursery, and if it is heavy and moist, not quite so deep. The best soil should be placed around the roots and the poorest on the surface. Several painfulls of water may be put into the hole, but the surface should not be wet or trodden down.

E. I. FARRINGTON.

The Buffalo Tree-Hopper

AN ILLINOIS subscriber sends a sample of a bark from one of his apple-trees which is unthrift.

The bark is badly scarred by the punctures made by the so-called buffalo tree-hopper in laying her eggs. The adult is a small, greenish insect about one third of an inch long and very much resembles a beech-nut in shape and appearance. During some years this insect is exceedingly abundant, and does considerable injury to apple-trees and other trees, particularly the soft maples. The adult insect flies to the apple-trees, makes V-shaped slits in the bark and deposits a few eggs in each slit.

The bark between the slits dies and, of course, the further growth of the tree produces characteristic scars. One female will deposit from one hundred to two hundred eggs, making many scars and doing considerable injury. The work is done usually from the middle of August to October, but the eggs remain in the bark all winter and hatch the next spring. It is said that the young tree-hoppers do not feed upon the apple-foliage, but upon the foliage of weeds growing in the fields. Scars made on the branches cause them to become weak, so that heavy winds very often break them off.

Since the nymphs feed upon weeds and plants growing in the vicinity of the trees, the insect can eventually be controlled by practicing clean culture in the orchard. A few females will fly from adjacent fields, but the injuries from such stray adults will never be serious.

GLENN W. HERRICK.

Quality

It seems rather paradoxical to say the seller assumes the risk, and yet this is true of a reliable merchant. For in every transaction he virtually says, "Take these goods home, and if they are not entirely satisfactory and as represented, return them and get your money back."

You have a feeling of security in dealing with such merchants, because their goods must possess quality in order to stand such a test. The concerns whose advertisements appear in FARM AND FIRESIDE deserve your patronage because this is the way they do business.



The FARMERS' LOBBY.

Politics for Farmers

By Judson C. Welliver

SEVERAL readers have lately written, asking me to write a political letter. A Pennsylvania man said he would bet there was more insurgency in his county, in the north central part of the state, than in an average Iowa county, but admitted that the people didn't know exactly what to do about it. A western New York friend who writes suggestions for this department occasionally, and is always especially appreciated, declares that the rural parts, at least, of the East seem just as insurgent, but not nearly so progressive, as the Middle West.

That struck me as mighty good. Two or three days afterward I talked about New England to Louis D. Brandeis, the great Boston lawyer who is always progressive and much of the time insurgent. He is one of the sort of unpartizan progressives who is perfectly at home helping the Democratic governor of Massachusetts draft a code of traction laws for Boston, or assisting the Republican governor of New Hampshire outline a railroad-regulation scheme for that state. Brandeis would help the Republicans put over an initiative and referendum measure in Maine, and then turn right around and explain to the Arizona Democrats how the trick was done, so they could do it to Arizona.

"We Learned by Being Licked"

ONCE in Boston I was privileged to dine at the Brandeis home, and conversation falling on Supreme-Court appointments, I was holding forth with some expressions of disaffection about the selections President Taft had made. Mrs. Brandeis concluded I was hard to please, and demanded:

"Well, Mr. Welliver, if you had to select a chief justice, would you be able to find the right man anywhere?"

"If I were President, and had to appoint a chief justice, I wouldn't lose an hour," I replied. "I would appoint your husband."

Mrs. Brandeis made no more complaint that I was too hard to suit. I thought that was rather good myself; and it was absolutely true. But it has nothing to do with this political piece.

Mr. Brandeis entirely bore out the view of my New York friend. The New England people, he thought, were plenty insurgent; they didn't just know the political art of translating insurgency into results. Not to like the machine is one thing; how to beat it is another. I can't tell how to do that, except from our experience out in Iowa, where I used to insurgute with the insurgents when there weren't enough of us to furnish good sport for the other fellows. We learned by being licked. That was our great exercise. The organization fellows cleaned us up in the caucuses and at the conventions with amiable regularity. But we kept on requiring them to do it, until we had learned the trick. We got all the points in the game from having them worked against us; and after a while we turned up at a state convention and steam-rolled the old gang in exactly the same fashion they had been doing it to us.

That's the only way I know to learn. George Norris, the Nebraska insurgent leader, has said: "The people are right for it; even in the East they just want to be told how to do it. A correspondence-school course in precinct and county organization, by a good, active, experienced, progressive Nebraska county chairman would earn a man a fortune in Pennsylvania right now. The folks want to know how."

Walter Houser's Idea

THAT interested me still more, and I talked to Walter Houser about it. He's the chairman of the progressive Republican campaign committee that has opened a headquarters in this town. The idea of a correspondence school in grabbing precincts tickled him, and he told me what his organization is doing. It certainly has come pretty close to adopting that very system.

Houser is one of these seasoned old politicians like they grow in Wisconsin. He raises prize Percheron horses when he's at home on the farm. Just now he is raising something else; but he's just a farmer. He was secretary of state in Wisconsin during the La Follette epoch, but it didn't spoil him for farming, and he went back when he was out of office. Walter isn't the sort of farmer that you sell gold bricks to. He has had about as extended an experience with gold bricks, flimflams and fine work as anybody you are likely to meet. Houser thinks there is a good chance that President

Taft will not lead the Republican ticket next year. The insurgent leaders must seriously agree with him, for they have forty or fifty people at work in their headquarters, and are organizing state after state. "We will have ten states organized in two weeks, and twenty by the time Congress meets in December," he told me. "See those filing-cases? There are lists of over two hundred thousand names of people, arranged by post-offices; all of them sent in without expense to us, by volunteer workers. They are all progressives; all prepared to help make this fight; to organize their precincts, counties, districts, states. Such lists come in every day; tens of thousands of names in a week. No, we haven't much money, but a lot of people are sending us a little. Look here—" and he pulled out his desk drawer, and picked up a crisp twenty-dollar bill. "A man came in this morning and handed me that. He said, as he lived in Washington and had no vote, he couldn't do any work for us, so he would contribute his share in money. Well, a lot of people are helping us with the work, and paying their own expenses while they do it. That's the work that counts."

These anti-Taft Republicans say they will have three hundred delegates before the national convention meets. I don't believe it, but I do believe that they will have a lot more than the one hundred that the regulars are disposed to name as the limit. They say that they will carry the presidential-preference primaries in four of the five states that have such primaries—North Dakota, Oregon, Nebraska, Wisconsin and New Jersey.

They don't expect to carry Jersey, but they say they will poll such a big vote that it will give impressive sign of the disaffection with President Taft in a highly conservative, machine-ridden eastern state.

This is the fight the progressives are making: to convince the party that Mr. Taft, if nominated, cannot be elected.

La Follette in the Field

LA FOLLETTE is the only candidate in the field against Taft. All the insurgent senators and congressmen have declared for him, and are at work for him. The South is the section that will likely decide the issue. If the office-holders who control the delegations from the Southern States, and who are bound to lose their jobs if the Democrats come into power, can be convinced that the nomination of Mr. Taft means the loss of those jobs, it is insisted that the Taft phalanx in the South will go to pieces. That is what the progressives are going to try to show the southerners. They have emissaries in several southern states now, telling this story, presenting the argument, and making it just as personal, just as cold-blooded and selfish, as it can be made to a southern postmaster who wants to keep his commission four years longer.

In that argument lies, I am convinced, whatever chance there may be of defeating Mr. Taft for renomination.

There is one circumstance that seems to justify some hope on the part of the progressives. Mr. Frank H. Hitchcock, postmaster-general, has repeatedly said in recent months that he is out of politics. It was not believed that he quite meant this, at first; but latterly the view has been accepted that Mr. Hitchcock actually will refrain from intimate participation in the 1912 campaign. He wants to make a business record for business management of his great department, and has been working hard at that effort. Hitchcock is the man who organized the present machines in the Southern States; he is the man to whom the machine leaders, referees and office-holders concede that their first loyalty runs. Hitchcock could handle them more surely and effectively than any other man.

But let it be made perfectly clear that the progressives will not consider themselves politically bankrupt if they do not compass the defeat of Mr. Taft for renomination. Without pretending to quote any particular man, among them, I may state their general idea is this wise:

"As loyal party men we are trying to make the party realize that its portion will be sure defeat if Mr. Taft is nominated. We find, in fact, that most Republicans

already believe that. So our next duty is to organize an effective protest and dislodge him. If we fail in that, we will yet have accomplished much. We will have organized many states, carried a respectable share of them, got into touch with a great body of progressives and laid a foundation for future activities.

"If, then, after rejecting our counsels, the party meets the defeat that we believe inevitable, the 'buck will pass' to our wing. The old leaders will have been rejected, and our turn will come. Our people will assume that they are entitled to control the minority's policy in Congress; they will probably be able to dominate the campaign committee that will run the congressional campaign of 1914; they will jump into the fight for complete party control in 1916, and keep that fight going on throughout the entire period from 1912 to 1916. We are laying the foundation now.

"Without the work now doing, we could not hope to win even in 1916; with that work, we are positive of winning by 1916, and consider there is a good show to control in 1912."

Such is the progressive Republican program. The program of the regulars is obvious. They expect to bring the East, the South, and all they can control of the West, into the national convention; to have a good strong majority there; to run the show, nominate Taft, and elect him if they can. If they fail, they must fight for the next four years to retain party control. They insist that the progressive movement will die out in that time.

Presidential Possibilities

ONE of the interesting aspects of the present situation is the infrequency of discussion of Colonel Roosevelt as a 1912 possibility.

On the Democratic side, the candidates most talked about are Governor Wilson, Governor Harmon and Speaker Clark. Two months ago I would have said their chances in the race were in the order I have named them. To-day, I believe Mr. Clark has the best chance.

The attitude toward Bryan is curiously like that which I described a moment ago, on the Republican side, toward Colonel Roosevelt. That he is so infrequently mentioned as a possibility is the most impressive feature. But Bryan is credited with a larger potential influence on the Democratic nomination than Roosevelt is on the Republican.

Having credited the Speaker with the best chance in this race, I want to add that Governor Wilson impresses me, and most other observers, as the man with by far the largest popular strength. I have no doubt that a presidential primary taken by the whole country would give the Jerseyman a big plurality of votes; maybe a majority over both Clark and Harmon. But the politicians will make this Democratic nomination, just as they will make this Republican one. It is likely 1912 will see the beginning of the end of that power in the hands of the politicians, for the movement for presidential primaries is gaining ground at a rapid rate.

There Will Be an Interesting Scrap

THERE is promise of some picturesque touches in the coming fight. For instance, in one mid-western state, which I have been asked not to name at this time, the progressive Republicans have found that a large proportion of the people are insurgent, but the press of the state is all regular. It is impossible to get the public ear, to get the people aroused, to get the word to them that a real fight is on, and a real chance presented of getting results.

So here is the plan of the progressives. They will start, some time early in November, ten automobiles in this state. Five routes will be made up and carefully planned so that a schedule can be announced and maintained. Two autos will be sent on each route; one, in advance, to do the advertising, invite people and "bill the route;" in fact, as a circus advertising-car does. When this work is done, dates announced and interest aroused, the second car assigned to that route will come along—a couple of days afterward, or more. It will bring a couple of good stump speakers, who will address the assembled audience, tell them all about the progressive plans, urge the people to organize and get into the fight, and then chug-chug on to the next town for another talkfest.

This plan is designed especially to reach the farmers. Everybody is after the farmers. They are going to have the campaign brought right to their doors as never before.

Uncle Sam's Man

The Lure of the Rural Delivery

By Paul Crissey



ABNER KELLUM, at the end of his long drive, hunched forward and looked out of the side door of the rural free delivery mail-wagon. A thin cloud of steam was rising from the door of the summer kitchen and was being whisked away by the brisk spring breeze.

"She's either cookin' or washin'," he muttered as he started the ponies on a lope for the barn. "Hope she's made a bunch of crullers." He smiled expectantly and narrowed his eyes as he watched the door.

As the wagon-wheels crushed over the gravel by the pump, the back door opened and an elderly woman put her white-crowned head out into the open.

"Home again?" she called as if doubtful whether Abner had really arrived.

"Yessiree Bob!" answered the old man as he pulled up the team and let them bury their nostrils in the half-barrel under the pump. He turned to his wife, a foxy look in his shrewd old eyes.

"Ef you're bakin'," he suggested, "y' might bring out a cruller or two, whilst I'm unhitchin' th' boys." By the "boys" Abner referred to the ponies, splashed to their thighs with the mud of early spring.

"I'm washin'," answered Martha. "Just finishin' up a night o' clothing I didn't get t' do Monday on account of preservin'." She looked up into his disappointed face and smiled.

"And y' hain't done any bakin' all day?" the old man queried doubtfully.

"I didn't say nothin' about that," laughed the delicate-featured little woman. "You might go 'long and put the ponies up and I'll bring a couple out to you."

Abner chuckled. "I'm nearly starved," he admitted.

In his big farm barn he hitched and unharnessed his ponies, and then backed the muddy wagon to its place. His wife, doughnuts in hand, seated herself on a sack of corn and waited for him to finish.

"Any mail for us?" she asked wistfully.

Ostentatiously the old man reached under the seat of the wagon and handed her a letter which he had concealed there. Eagerly she opened it and glanced hurriedly over its boldly written lines. The old man, weary and hungry, sank down beside her and began slowly and methodically to munch on the doughnuts his wife had brought.

Then, somewhere up near the cupola of the big barn, a pigeon's throaty gurgle and the wind, sighing through the slats, filled the barn with a weird sound.

Silently he waited for his wife to read her letter. He knew it was from Hal, their boy who was down at Washington at school. He hadn't seen Hal for four years; and each year left the scar of his absence on the old man's heart. Abner wanted the lad home—wanted him to put up his "shingle" in the village and do his law business there—that is, when he finished his schooling. But Hal had never been able to come home during vacation-time because of the expense and the fact that he had found employment there while others were enjoying their vacations.

"Reckon he's a pretty big boy now, Marthy; four years is an awful long time for a growin' man."

But for once his wife wasn't listening.

"Marthy," Abner's plaintive voice was hushed, "there ain't nothin' wrong with him, is there?" he asked.

"No," his wife answered dully, "no, there's nothing wrong with Hal." She met the old man's brightened eyes and slowly handed him the letter which he eagerly clutched. For the first time in her life she realized that her boy might some time be a man. That he was already, she knew was impossible, so she gave no thought to it.

A certain mistiness came between Abner's eyes and the letter as he read, and even the few furtive dabs of his hand failed to remove the obstruction.

To them both, now that they had read the letter from their boy, it seemed as if the end of the world, their world, had come. Abner dully wondered what he would do in the future. His boy said that he would no longer need any money, that he was through with his law course and that he had a position. The old man realized dimly that there would be no future need for him to drive the mail-wagon along twenty-five miles of country roads each day. He would no longer be Uncle Sam's man on the rural delivery route, and he and Martha could live on what he had put away and the income of the farm. Dimly his eyes sought the mail-wagon with its coat of fast-drying mud, and the old man's heart sank within him. No more excuse for driving that, he told himself painfully.

But he had not completely finished reading his boy's letter. A scanty postscript at the bottom of the last page missed his scrutiny, and it was not until his wife pointed to it that he saw what seemed at the time might be the salvation of his happiness.

"If I should need about a hundred dollars to get started on, can I expect it from you?"

In its bold scrawl Abner saw that the life he had grown to love might reasonably be prolonged for a short time at least. He would certainly help his boy to get started in the world, Abner told himself.

Abner's face was one which clearly advertised his

innermost thoughts. Clean-shaven, wind-ruffed, his countenance lay like an open book for all to read, but Abner cared little for this weakness, if weakness it was. He had needed extra money for his boy, so, accepting an appointment for the rural free delivery service in his own district, he had seen new fields, new people and had, in the time that the need for money for his son lasted, grown to love the long daily ride and the constant meetings with the "folks" of his community.

The woman by his side had risen, and Abner, casting a quick glance at her tired face, sat unmoved as she left the barn without a word.

With the same old pail and the same old sponge he cleaned the white-covered wagon and carefully dusted its interior. Then he straightened up the cushions which Martha had made for him. Then he went in to supper.

"I see by the papers that the postal inspector has been to Mayville to-day," remarked Martha to the old man. Abner paused and slowly pulled off his shoes, sat down heavily beside the table and spread the paper before him.

Carefully he drew on his steel-rimmed spectacles and, closing his mouth firmly, began laboriously to pore over the little, poorly printed, four-page sheet.

"I reckon," he said with a touch of satisfaction in his voice, "I reckon that he'll find me at my post, all well and good."

* * *

Possibly it was due to forgetfulness, and possibly it was on account of haste that the straight-limbed young man from Washington found himself being hurled toward Mayville instead of toward Silvertown. The engine whistled through the cut and floundered to where it crossed the road. The young man pushed a nervous hand to his mustache, fumbled for a moment with his suitcase, then, on a sudden impulse, dashed for the door of the car and swung off the rear platform.

"Well," he said to himself, "it's only four miles from here anyhow—and the walk will not hurt me."



"He had broken the law! He, one of Uncle Sam's men, had disobeyed a trust"

Impulse again! He seized the cumbersome suitcase and started up the road. A big, broad valley, green and damp, lay to his left, and the long, wooded slope of a hillside on his right. He sniffed occasionally, put his hat far back on his head and glared defiantly at the big red sunset.

A tin box, set on a post by the roadside, marked a near-by house. The young man from the national capital set down his suitcase and opened his coat; for a moment he stared off across the valley at the blue mist on the other slope, then suddenly he started. Right before him a white-covered wagon, drawn by two ponies, had stopped and an old man climbed out through the narrow doorway, a package of letters in his hand.

Abner, lost in his day-dreams, scarcely saw the stranger standing by the mail-box, and when he did, he bowed stiffly. The young man returned the nod and spoke:

"You are the mail-delivery man?" he asked pleasantly.

Abner eyed him critically, but he was ready.

"I suppose," he said with dignity, "that you're a-goin' down to Silvertown?"

"Yes," answered the young man, "I am."

"Ride?" volunteered Abner, with a wave of his hand toward the wagon.

"Thank you, don't mind if I do."

A look of satisfaction crossed the old man's face, and involuntarily he straightened up. His mind had been quick to associate facts. The stranger was, undoubtedly, the post-office inspector and Abner was alert to perceive that he had a chance to make a good impression.

"Might I ask your name?" he asked, clucking to "the boys" at the same time.

"Certainly," replied the stranger with a dignity which covered a smile. "It's Carson; James Carson."

"And you hail from—"

"Washington," supplemented the stranger.

"Air you one of Uncle Sam's men?" questioned Abner, and his keen gaze took in the heavily mustached man beside him.

"I am," promptly responded Mr. Carson, for, as he thought to himself, he was at least an American citizen. Abner, however, regarded this as an admission by the man himself of the fact that he was the postal inspector.

"Just look at that," continued the old man, suddenly pointing to a lilac-bush. "When I come by here yistaday there wa'n't a bit o' green on that bush. Now look at it. All jest a-bustin' out with yellowish green."

"Beautiful!" replied the young man shortly, scarcely taking his eyes from Abner's face. "Beautiful!"

Abner sank back into the cushion which Martha had made for him. He was happy. His object, that of keeping his son supplied with money, had not been taken away from him, and the old post-wagon, "the boys" and the road, with its dearly loved spots, were still his. He was still one of Uncle Sam's men.

Meanwhile the inspector's face, like that of the old man by his side, had undergone a few swift changes. Sorrow now lay upon its surface, but the swift impulses which had ruled his life were bound not to let it linger long.

"Did you ever read," he slowly asked, "Section 1157 of Volume XX. of the postal laws?"

"Don't know as I ever did," answered Abner absently. "Why?"

"Didn't you know," and this time there was a mischievous smile about the young man's face, "that it is against the law to carry passengers in a mail-wagon doing duty on a public highway?"

"No!" The old man had come suddenly back from his dreams and was facing a new, cold proposition which gripped him hard. His face was flushed red and the veins on his hands bulged boldly under his browned skin. The inspector watched Abner narrowly. Slowly the old man sank back in his seat, the lines dangled from nerveless hands and his eyes took on a dull stare. The ponies broke into a gallop.

He had broken the law! He, one of Uncle Sam's men, had disobeyed a trust. He had not meant to do it. He didn't know it was wrong, but he felt that the law would never take that into consideration.

As for the inspector, he smiled grimly under his heavily mustached disguise and pointed to a near-by bush, which, like the one before, was rife with the signs of spring's arrival; but Abner did not hear him. He was bitterly recalling the boy's need of a hundred dollars, and now he had broken a law.

"My wife—" he began hesitatingly, "if you'd just as soon not say anything to her till morning, I'd be much obliged."

His voice shook, but he rallied his self-control. "You stay all night up to the house, and we'll go over this thing when—when I feel a little mite less tired."

The inspector nodded and said: "Of course, if I feel that it is necessary to bring this matter before the officials—you will—you will have to—"

"Yes," interrupted the old man, "I'll be ready to go along to-morrow, in the mornin'."

He passed a trembling hand across his forehead and shyly, almost reverently, touched the well-polished badge of his office, while he watched the inspector, half frightened, yet unwavering in his determination.

"This is the inspector, Martha," he said, when the little white house was reached. "He's a-goin' to stay all night and—and—go over some of—of Uncle Sam's business with me."

* * *

One thing which Martha noted was that the inspector liked doughnuts. Her starved heart went out to this big, boyish man and she longed to lead him into a good confidential talk. And before the evening was over she did. Abner, with evading eyes, listened to their chatter for a few minutes and then went heavily up the stairs, the lamp a trembling blur of yellow in his hand.

Gradually, and between helpings of food, the inspector had heard the story of the boy at school, the boy which the tired, plain little mother was hungering to see and to help. He heard how Abner had taken the mail delivery, how they had money enough to live on and how the boy at school had made the postal appointment almost necessary. But quick as he was to respond to her little confidences, the inspector did not say a word of Abner's violation of the postal laws. And when, some two hours after Abner had gone to bed, the little woman showed the inspector to his room, she pointed to a gray, faded photograph and with a proud shyness said: "That's our boy, Hal." When she had gone, the inspector turned up the lamp and laughed silently in the photograph's face.

Abner spent a troubled night. Black thoughts held him in their grip and he tossed till morning. Then, the battle fought and Martha below getting breakfast, he stumbled about the room carrying out his plans.

[CONCLUDED ON PAGE 26]

THE GIFT CLUB

Conducted by
Jean West, Secretary

FARM AND FIRESIDE has a new department, The Gift Club, and, because it is all my own idea, I, Jean West, have been chosen to be its secretary. Isn't that splendid news?

The Gift Club is just what its name implies: a club that will give you beautiful gifts, just the things that you have always wanted and never felt that you could afford. And the best part of it is that these gifts won't cost you a single penny! That seems wonderful, does it not? But let me tell you just how The Gift Club came about, what it is and what it will do for you. When you have finished reading, you will be eager to join the club and share our success, or I'm no prophet.

It was this way: A few weeks ago I traveled through some of the farming country in the Middle West and I thought, as I passed farm after farm, what a difficult matter it would be for the women-folks on the farm to keep in touch with the trade life in the large cities; how almost impossible for them to avail themselves of the bargains that are constantly being offered in the city. I believe it was this idea of bargains that decided me, for every true woman does love a bargain. I think the bargain-hunting instinct must have been a legacy handed down from Mother Eve. Perhaps the serpent told her that the apple he offered was the biggest and reddest on the tree and that she could have it for a smile. However that may be, I decided to talk to the editor of FARM AND FIRESIDE and ask him if he would let me start a club for all the girl and woman readers of our paper.

"Yes," said our editor, Mr. Herbert Quick, who is just as nice and jolly as he can be. "The idea sounds good, but how are you going to organize a club among our women-folks who live in all corners of this broad land? They can't all meet together, that's certain."

"Oh, but don't you see," said I, "it's not to be that sort of a club at all. They won't have to meet with anyone but me, and they will do that by letters. It's just as simple! Every girl and woman on the farm who longs for pretty things that she can't afford and can't get without a lot of trouble even if she can afford them will want to join this Gift Club of mine. I shall spend days and days and weeks and weeks hunting bargains, ransacking wholesale houses and going through the latest stock of importers. Then I shall give these splendid things to the members of FARM AND FIRESIDE's Gift Club."

"But you don't really mean that you will actually give away all these beautiful presents, do you, Miss West?" asked Mr. Quick.

"Well, it's so near giving that no other word seems to fit. Of course, the girls will do a little bit of work to get all these fine things that I have for them. Yes, indeed. And that's the fun of it. It's always nice to work for things for oneself—at least, it seems so to me, and I think the members of my Gift Club will think so, too. Do let me start it, please!"

And that is how it happened. Our editor finally gave his consent and wished our Gift Club great success. He is really quite as enthusiastic about it as I am.

I want every girl and woman who reads this first talk of mine to enroll herself at once as a charter member of The Gift Club. Rules there are none, nor dues, nor expenses of any kind, but the benefits that you will receive by being a member of The Gift Club, oh! that's a different story altogether.

Now I know you are wondering why I don't tell you the club's secret right away. It's just because I'm a girl myself and I know that every girl loves a secret. We all have a large share of curiosity and I want to raise yours to the boiling-point, so that you will sit down at once and write

me to find out all about the club. I'm never going to tell our secret here in the pages of FARM AND FIRESIDE, so if you ever expect to find out, you'd better write me at once and not sit there puzzling your brain to guess what it is. The Gift Club is not a puzzle. It's just a plain, straightforward club that will be a help to you if you will let it.

How would you like to have a friend who will do nothing but travel from city to city with her eyes open for all the best bargains and who will let you know about them; who will buy these things for you and send them to you without charge? It would be convenient, to say the least, wouldn't it? Well, that's exactly what will happen to you when you join The Gift Club. No, The Gift Club is not a mail-order business, and it has nothing to do with shopping by mail. It is— There, I almost told you! Well, it's just a secret so far, but a secret that I shall be glad to whisper to you on paper if you will let me.

Would you like to have a fine, seal-grain-leather hand-bag, a real Irish-lace jabot, a beautiful gold-inlaid comb for the back of your hair, or a handsome linen embroidered collar-and-cuff set? You may have one or all of them, and they won't cost you a single penny! Doesn't that seem wonderful? Just as soon as you join The Gift Club, I will tell you how you may get all these gifts and many more.

Do you want a few new books for the living-room, a camera, or a watch? Join The Gift Club and get them. Do you need a new scarf for your bureau, or lace curtains for the living-room? Here they are waiting for you. How well I know the things for which girls have longed almost since time began. Pretty clothes, laces, frills, furbelows and dainty "fixings." I remember that when I was just a mere scrap of a girl my heart was set on a comb, brush and manicure set, all hand-painted and silver-mounted. There were things that I needed far more—a new school frock, for instance—but I wanted that set so badly that I gave up both the new dress and a hat, in order to have it for my very own. I took the keenest joy in arranging the articles on my tiny dresser, and to this day, whenever I hear a girl speak of wanting things for her room, I think of that comb, brush and manicure set.

So you may be sure, dear girls, in all the gift-giving, I shall not overlook you. There are all sorts of pretty things, both for yourself and for your room, waiting for you in The Gift Club. Claim them for your very own.

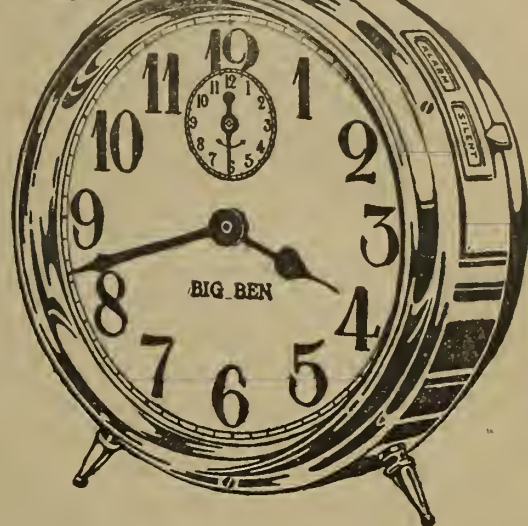
How about your curiosity? Has it reached the boiling-point yet, or shall I show you a few more plums in The Gift Club pudding? Jewelry? Yes, I have beautiful rings and pins and locket and lovely bracelets—plenty of plums. Pictures and beautiful china and—oh, what is the use of trying to tell you everything in these two columns? I can't do it. But I shall be glad to write you and send you a little booklet if you are interested, and, of course, you are.

Remember this: Every girl and woman reader of FARM AND FIRESIDE is eligible for membership. There are no dues nor expenses of any kind. The club has a secret which, when known and followed, will bring you all sorts of valuable gifts. And another thing: Our editor, Herbert Quick, heartily endorses The Gift Club and its purpose. There! Do sit down this very minute and write me a note. A line on a postal card will do. I am so eager to welcome you.

Jean West

Secretary Gift Club,
FARM AND FIRESIDE, Springfield, Ohio.

Big Ben



If you'd rise early—just say when
And leave your call with him—Big Ben

Put jolly old Big Ben on the job. Let him solve your early rising problem.

You have a rising problem, if you put your whole heart in your work.

For if you are a heavy worker, you require heavy sleep and plenty of it.

So leave your call with Big Ben. Go to sleep and sleep your best. Forget the rising hour.

His merry morning call will call you every day at any time

you say. It will keep on calling until you're wide awake.

Big Ben stands 7 inches tall. He's massive, well poised, triple plated.—His face is frank, open, easy to read—his keys large, strong, easy to wind.

He's sold by jewelers only, the price is \$2.50 anywhere.

If you cannot find him at your jeweler, a money order sent to his designers, *Westclox, La Salle, Illinois*, will bring him to you express charges prepaid.

Are You Looking For a Dressmaker?

If you are, remember that Good Taste is always your best dressmaker.

Have you Good Taste, or do you feel the need of a little education along that line?

If you do, study carefully the new catalogue of WOMAN'S HOME COMPANION patterns. Every costume in it represents Good Taste; the good taste that is so essential in fitting the gown to the environment; the good taste that is so important in making the first impression count; the good taste that means always innate refinement.

The price of this catalogue is four cents. It may be ordered from the nearest of the three WOMAN'S HOME COMPANION pattern-depots: 381 Fourth Avenue, New York; Springfield, Ohio, or 1538 California Street, Denver, Colorado.

Remember, to dress well is the real duty of every woman. The underlying principle of correct dressing is Good Taste, and

*Good Taste is the Underlying Principle of Every
Woman's Home Companion Pattern*

Fall Work in the Garden

By Samuel Armstrong Hamilton



EVERYONE loves the spring-blooming bulbs, and many desire to have them, but their planting comes at the very end of the garden season, when the outdoor interest is on the wane, and they are forgotten until the spring comes again. In order to have a fine display of bulbs, some work in the garden in the fall is necessary, but as other work should be in progress at this season the planting of the bulbs can be done at the same time.

Don't Wait Until Spring

All persons who are versed in the lore of good gardening practise the clearing-up of their gardens in the fall of the year after hard freezing, in order to get out of the way work which can then be better done than in the spring, when all is in a rush. In order to kill the eggs and cocoons of insects and fungous diseases, war on the latter two enemies must be continuous if the garden is to be a success. Rake up and burn all rubbish, such as the decayed tops of plants and the leaves from trees and bushes, and sweep the garden clean. This will kill many garden enemies, and you will not need to do it next spring. This is the time to make extra soil for future use. If the soil in any part of your garden is giving out, or you need some for next season's potting of house-plants, make a compost of one part of good mellow loam, one-half part, each, of well-rotted horse-manure and chopped-up sods from the roadside, one fifth its bulk of sand (if the base be limestone loam), or a dusting of powdered lime (if it be sandy loam), and a quart of bone-flour to each bushel of the above mixture, all well mixed together and piled under cover over winter, to keep moist until freezing occurs.

Taking Care of the Soil

The soil in the beds in which it is not intended to plant bulbs for winter should be trenched; that is, piled in rows so as to present as much surface as possible to the action of the frost and the air during winter, to absorb nitrogen and to make a medium for the action of the soil-bacteria, which work in the humus in the soil, and without which no soil is fertile.

The soil for the beds and borders in which spring-blooming bulbs are to be grown should be deep and friable, filled with humus and enriched with well-rotted horse-manure, dug in deeply. It is best to first dig the soil and then chop it with the rake to make it fine and mellow before raking. No commercial fertilizers need be used for outdoor bulbs, unless the soil is new and lacks one or more of the primary soil-contents, in which case one containing potash, phosphate or nitrogen may be used as needed. But there is nothing better for a loamy soil than stable-manure.

The Time to Plant Bulbs

It should be understood that the outdoor bulbs must do their rooting in the fall, if the best results are desired in the spring. They should be planted about the time of the first frost, which will ordinarily give them six weeks before the ground will be so cold as to prevent further root-growth. You must judge this by your latitude. The bulbs should be planted in the soil to a depth of three times their height, and may be planted quite closely together if a massed effect is desired in the beds and borders. In fact, they rarely look well unless their foliage touches when in full growth. These distances will give good results: Plant hyacinths three inches apart; large tulips, four; small tulips, three; jonquils and Roman hyacinths, three; Von Sion narcissus, three; other narcissus, as close as two inches. Crocus may be planted as close as desired, as may *Scilla Siberica* and grape hyacinth. When making figures and designs, you must be largely governed by the harmony of the design.

Success Comes Through Proper Planting

Many persons fail of success with outdoor bulbs through not planting them properly. They should not be planted in a hole in the soil, nor pressed into the ground. The best method, the one adopted by the best amateurs, is to throw the soil out of the bed or border, which is the same as digging it. Then return a portion to the bottom, so as to bring the bulbs four inches (for hyacinths) from the surface. Level this with the rake, and set the bulbs the required distance apart, and sift the remaining soil over them. Soak the soil with the spray nozzle, and it will pack properly about the bulbs, and growth will start promptly. The principal trouble always has been that air surrounded the bulbs, causing them to dry out and preventing rapid growth in the fall. It is axiomatic that the more root-growth there is in the fall,

the finer the flowers will be in the spring. The bulbs for potting for the house should be selected with great care. You can depend upon any first-class seedsmen doing this for you, if you state, when ordering, that you desire potting-bulbs. Of course, you must pay more for them, but they are worth the money. The soil should be made rich by following the directions given above, and should be well rotted. Use no fresh manure for bulbs, either for indoors or outdoors.

The indoor bulbs may be potted in sizes to suit different purposes. Two hyacinths, narcissus or tulips may be put into one four-inch pot, four into a six-inch one, and a dozen in a ten-inch pan. When potting singly, use three-inch pots. Crocuses may be grown in two-inch pots.

How to Pot Indoor Bulbs

The bulbs should be potted by filling the pot half full of soil; set the bulb thereon, and fill with soil to the top, but *do not press it down*, or the soil will pack under the bulb, and the growing roots will lift it out of the pot, instead of permeating the lower soil. The soil is settled about the bulb by carefully soaking the contents of the pot with water, filling in any needed soil on top.

When all are potted, the bulbs should be put in a dark place in which the temperature will be similar to that outdoors, except that hard freezing need not be permitted, although it will be no detriment. This is done in order that the pots will fill with roots, without growing any top to the bulbs. When the pots are filled with roots, they can be brought into the light and warmth, kept watered, and will soon bloom.

If the potted bulbs are desired for any particular day, hyacinths, narcissus and tulips should be brought in from eighteen to twenty-one days before desired in bloom, and kept in a temperature of sixty-five degrees at night and not over seventy-five in the daytime, always in a moist atmosphere and out of the direct rays of the sun. A sunny window with a thin sash-curtain is an ideal place for them. If the bulbs are desired for Easter, after they have filled the pots with roots, bury them outside in the garden, level with the soil, put leaves or straw over them and cover with boards, so they can be easily gotten out when wanted.

How to Treat Frozen Soil

When the soil in the bulb beds and borders has frozen solid, it should be mulched with some good covering, such as leaves, straw or hay to a depth of six inches. Straw manure may also be used to advantage, and this covered with brush to prevent the covering blowing off. This mulching should not be taken off until the hard frosts are past, as the alternate freezing and thawing and lifting the bulbs out of the ground will prevent their blooming.

Outdoor bulbs require very little cultivation in the spring beyond having the mulching removed when the soil gets warm, and the latter given a good stirring when it gets dry enough without baking the top. No fertilizing is required at this time, as the growth of root which produces the flower will have been completed.

The bulbs which are bloomed in the spring of the year and in the house are pots are known to the trade as "Dutch bulbs." They are grown exclusively in Holland for commercial purposes and have not been successfully grown in any other place. The soil, temperature and climate in Holland seems to be just right for their best development, and many millions are grown yearly and exported to other countries. It is a fact that the tulip and hyacinth, from Holland bulbs if grown outdoors in this country, will run out in a few years. So it pays to replant them every year if the finest effects are desired. The bulbs which have been bloomed in pots in the house should, after blooming, be thrown away as worthless, as it does not pay to attempt to get a second bloom from them. The hybridizers are continually introducing newer and finer types, a few of which should be tried by the amateur every season. You can depend on it that any variety introduced has been thoroughly tested and found fully worthy after exhaustive trials. Buy first-class bulbs from a reliable dealer, and you will get good results.

He Found It Out

By Eugene C. Dolson

YOUNG Tommy explained to his father: "I looked through the keyhole, you know, And into the parlor where Mabel Was seated alone with her beau."

"But you couldn't find anything out, Tom, Whatever maneuvers you tried." And Tommy was quick with an answer: "I found the light out," he replied.

If Soda Crackers Grew on Trees

Nature would cover them with shells, like nuts, protecting from moisture, mildew, dirt and insects.

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Think it over and you will always buy the protected kind.

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without warming closet or reservoir. With high warming closet, porcelain lined reservoir, just as shown in cut, \$17.75; large, square oven, wonderful baker, 6 cooking holes, body made of cold rolled steel. Duxiegrate; burns wood or coal. Handsome nickel trimmings, highly polished.

OUR TERMS are the most liberal ever made. You can pay after you receive the range. You can take it into your home, use it 30 days. If you don't find it exactly as represented, the biggest bargain you ever saw, equal to stove re-tailed for double our price, return it to us. We will pay freight both ways.

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And Gas Stoves Too

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125 Broad Street, Lyons, N. Y. April 16, 1911. Gentlemen: The Kalamazoo Range ordered of me. It is as near perfect as my wife says, as a stove better than the stove she used before, which cost \$80.00. Yours respectfully, WM. C. FIERO.

Patterns That You Need

Designs by Grace Margaret Gould



No. 1876—Collarless One-Piece Dress

Cut for 4, 6, 8 and 10 years. Material for 8 years, four and one-fourth yards of thirty-six-inch material, with three fourths of a yard of contrasting material for trimming and one fourth of a yard for the yoke. This makes a pretty school dress. Price of pattern, ten cents



No. 1892—Yoke Waist Buttoned at Side
Cut for 32, 34, 36, 38, 40 and 42 inch bust measures. Material for 36-inch bust, two and one-eighth yards of thirty-six-inch material, with three eighths of a yard of lace. Price of pattern, ten cents

No. 1893—Two-Piece Skirt Buttoned at Side

Cut for 22, 24, 26, 28, 30 and 32 inch waist measures. Quantity of material required for 26-inch waist, three yards of thirty-six-inch material. Price of pattern, ten cents



No. 1461—Fitted Corset-Cover with Seams to the Shoulder

Pattern cut for 34, 36, 38, 40, 42 and 44 inch bust. Quantity of material required for medium size, or 38-inch bust, one and one-fourth yards of thirty-six-inch material. Price of pattern, ten cents



The peasant smock

The jacket which is made from this negligee pattern

No. 1784—Negligée Made in Three Styles

Pattern cut for 32, 36 and 40 inch bust measures. Quantity of thirty-six-inch material required for the short negligee, one and three-fourths yards, with one and one-eighth yards of contrasting material thirty-six inches wide for trimming-bands. For the smock, three and one-half yards, with one and three-fourths yards of contrasting material thirty-six inches wide for collar and skirt facing. For the negligee with side closing, three and one-half yards, with one and one-eighth yards of contrasting material thirty-six inches wide for the yoke and skirt-trimming. Price of this pattern is ten cents. It can be used to make these three different garments

The long negligée



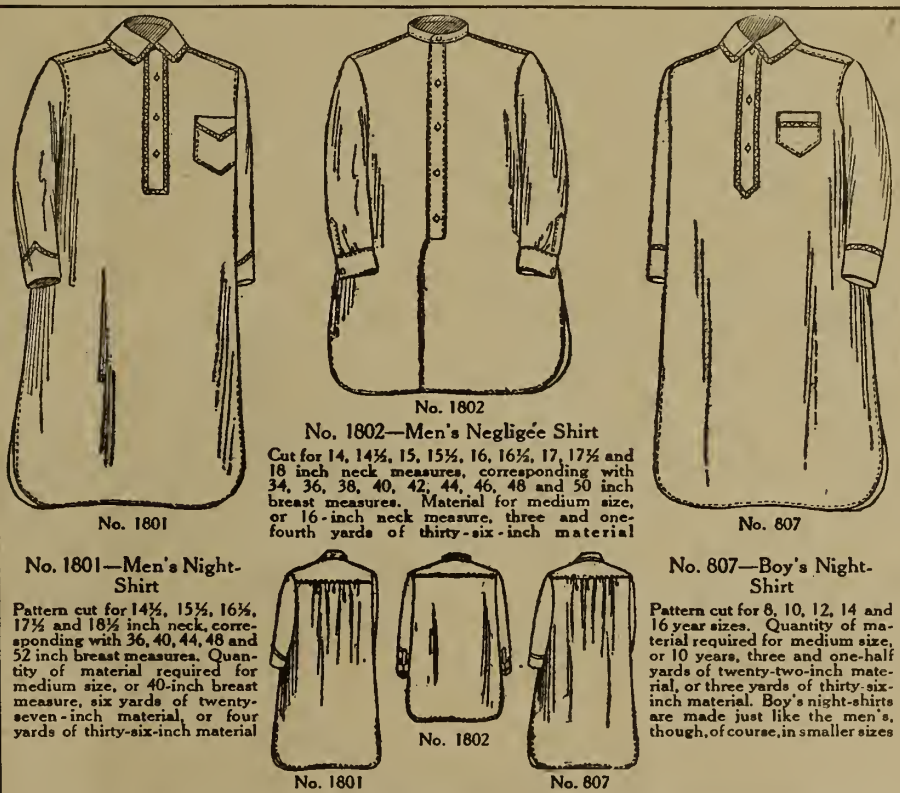
No. 1879—Guimpe Dress with Kimono Sleeves

Cut for 6, 8, 10 and 12 year sizes. Material for 8 years, two and three-fourths yards of thirty-six-inch material, with three fourths of a yard of contrasting material for yoke and one and one-half yards of lace for guimpe. Price of this practical pattern of child's dress, ten cents



No. 1798—Housework Apron—High or Low Neck

Pattern cut for 32, 34, 36, 38, 40, 42 and 44 inch bust measures. Quantity of material required for medium size, or 36-inch bust, seven yards of twenty-seven-inch material, or five yards of thirty-six-inch material. For low-neck apron, one and one-half yards less of twenty-seven-inch material, or one and one-fourth yards less of thirty-six-inch material will be required. Price of pattern, ten cents



No. 1801

No. 1802

No. 807

No. 1802—Men's Negligée Shirt

Cut for 14, 14½, 15, 15½, 16, 16½, 17, 17½ and 18 inch neck measures, corresponding with 34, 36, 38, 40, 42, 44, 46, 48 and 50 inch breast measures. Material for medium size, or 16-inch neck measure, three and one-fourth yards of thirty-six-inch material

No. 1801—Men's Night-Shirt

Pattern cut for 14½, 15½, 16½, 17½ and 18½ inch neck, corresponding with 36, 40, 44, 48 and 52 inch breast measures. Quantity of material required for medium size, or 40-inch breast measure, six yards of twenty-seven-inch material, or four yards of thirty-six-inch material

No. 807—Boy's Night-Shirt

Pattern cut for 8, 10, 12, 14 and 16 year sizes. Quantity of material required for medium size, or 10 years, three and one-half yards of twenty-two-inch material, or three yards of thirty-six-inch material. Boy's night-shirts are made just like the men's, though, of course, in smaller sizes

No. 1801

No. 1802

No. 807

A bargain in patterns. This set of three shirt patterns for 20 cents

Woman's Home Companion Patterns

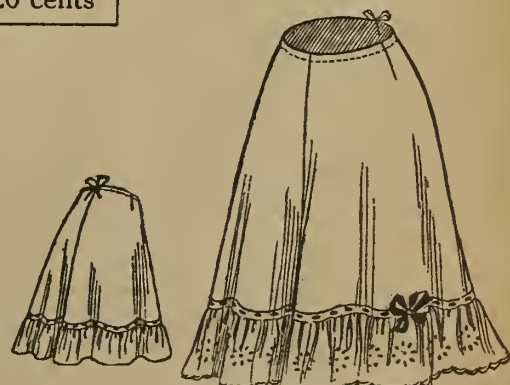
The patterns for the clothes here illustrated cost but ten cents each. They may be ordered from any of our three pattern-depots: Pattern Department, FARM AND FIRESIDE, 381 Fourth Avenue, New York; Pattern Department, FARM AND FIRESIDE, Springfield, Ohio, or Pattern Department, FARM AND FIRESIDE, 1538 California Street, Denver, Colorado.

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To any FARM AND FIRESIDE reader who sends us one new subscription to FARM AND FIRESIDE with fifty cents for the same, we will give as a premium for the subscription one WOMAN'S HOME COMPANION pattern. To obtain a pattern without cost, send the subscription to FARM AND FIRESIDE, Springfield, Ohio.

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If you have not already ordered the new fall and winter catalogue of WOMAN'S HOME COMPANION patterns, you should do so at once. It is like a big, beautifully illustrated fashion book. It costs but four cents and may be ordered from any of our three pattern-depots.



No. 1269—Dart-Fitted Circular Drawers

Cut for 22, 24, 26, 28 and 30 inch waist. Material for 26-inch waist, two and one-fourth yards of thirty-six-inch material, with three and one-half yards of lace and two yards of beading. Price of pattern, ten cents

Household Department

A Page of Helpful Hints and Practical Recipes



A REAL VACUUM CLEANER

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Here is a Vacuum Cleaner that looks like a carpet sweeper and runs like a vacuum cleaner, yet is a powerful blast of air through the carpet, bringing every particle of dust out of the texture without taking up the carpet. What is more, it has such a strong suction that it actually pulls the dust off the floor up through the carpet. Think of it! No more taking up of carpets. Just run the easy running Domestic Vacuum Cleaner over them every day or so and your carpets are as fresh and clean as new every day in the year and the colors are always bright and fresh.



The pile of dirt shown here was removed from a rug by a Domestic Vacuum Cleaner which had been thoroughly swept with a broom. This dirt was down in the texture of the rug beyond the reach of the broom. Try one on your carpets at our risk. If it does not do all we claim, return it at our expense and get your money back. Sent anywhere in the United States, charges prepaid upon receipt of \$16.00.

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Assorted Subjects

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These cards are without doubt the acme of post-card production. They are lithographed in ten colors and the designs are new, original and attractive.

You Will Want These Cards

And we want you to have them. The subjects are many and varied, and can be applied to all occasions, such as Birthday Greetings, Best Wishes, Good Luck, etc.

We give you our positive assurance that a finer assortment of Post-Cards cannot be obtained anywhere. These cards are the best in every particular.

Write To-day for Particulars

We will reply immediately telling you how you may obtain this fine assortment of high-colored, high-finished, high-priced Post-Cards without a cent of cost to you.

Write at once. Address

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AGENTS T. H. BALL SOLD 850

not one returned. Stacey sold 12 in one hour. Newsom sold 12 in 10 calls. Gibson sold 48 in 15 days. Sells itself. Needed in every home. Our Sunbeam Burner fits other lamps. Complete line for homes, stores, etc. Ask for our liberal agency proposition.

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Offices at—Chicago, Ill., Portland, Ore., Waterville, Conn., Dallas, Tex., Winnipeg, Montreal, Canada.



REAM BISCUITS (tested)—One large cupful of sweet cream, add a pinch of salt and a pinch of soda. Stir well. Then add two heaping teaspoonfuls of baking-powder and flour to make a soft dough. Roll and cut out and bake. These biscuits are excellent.

MRS. J. S.

Devil's-Food Cake—I have used this recipe for four years and never had a failure: Two cupfuls of brown sugar, one-half cupful of butter, two well-beaten eggs, one-half cupful of sour milk, two squares of chocolate dissolved in one cupful of boiling water, two teaspoonfuls of soda mixed with the sour milk and two cupfuls of flour. Flavor with one teaspoonful of vanilla. Beat all well. Then bake.

MRS. J. W. S.

Steamed Icing—Beat together thoroughly the whites of two eggs, add five tablespoonfuls of granulated sugar and beat again. Put in double boiler, cover and steam ten minutes. Take from stove and beat with a spoon until cold. Flavor with vanilla. It will not run off the cake, but will keep soft much better than boiled icing.

Mrs. D. N. B.

Good Stain for Floors—The best, most inexpensive and only permanent stain for floors is permanganate of potash. It can be purchased at any drug-store. Mix about one quarter of an ounce to a quart of water. With a brush apply freely and quickly to a dry floor. Make two applications if a very dark color is desired. When dry, oil with burnt linseed-oil or beeswax and turpentine. You cannot wash the stain off. When you first stain the floor, the color will be a bright magenta, but it changes almost immediately to a dark, rich brown—a permanent stain.

Mrs. G. E.

Vinegar from Apple Parings—Cover with rain-water, let stand in stone jar, protected from flies with a cloth tied fast. Stir once or twice a week until cool weather sets in, then drain and add one-half cupful of brown sugar to one quart of juice. Let this work, skimming when necessary until clear. Then cask it.

Hints Worth Knowing—Beet-tops and lettuce leaves can be cooked together as greens.

Lettuce that has grown to seed can be fed to the chickens and the pigs.

Small cucumbers pickled, spiced and put up in vinegar and sealed in self-sealers will keep better than if salted down in brine.

In pouring liquid from a bottle, tilt so that the drip will be on the side opposite the label and thus add much to the general appearance of your medicine-chest.

By placing a small lid or tin in the bottom of a kettle or pot likely to scorch, and keeping the space underneath well filled with water, you may prevent even a slight burning and thus not only do away with all the "scorchy" odor and taste, but also save time otherwise required to clean vessel. This is especially helpful in pots already burnt.

Gather every little scrap of soap, put into receptacle and when sufficient quantity is saved melt slowly and use for all purposes where soap is needed.

Give your stoves a thorough coat of black enamel. It will keep the iron looking fresh and black for months and will not soil the hands.

Sewing Suggestions—Sleeve plackets in shirts and shirt-waists should always be cut deep enough to measure one inch more than the length of the cuff when spread open flat. Therefore, the placket slit should be cut one half the length of the finished cuff, plus one-half inch. This is in order that the cuffs can be readily laid flat for proper starching and ironing, without fear of tearing the placket opening at the top.

EMMA L. H. ROWE.

Fitting Sleeves to Waist—Where waist and sleeve markings are missing, one must use other methods of sleeve adjustment.

The best way is to adjust waist to the person, then pin the sleeve in at the armhole, so that the warp of the material (the up and down) falls straight from the shoulder to the elbow.

Where it is not practical to try on the waist, measure one inch back from the shoulder seam. From this point, halve the armhole. The front seam of the sleeve should meet this second point.

The approximate distance from the under-arm seam of the average waist to the point where the front seam of the sleeve should be attached is about two inches.

Any one of these methods should give very satisfactory results, although the first is easier.

In adjusting sleeve fullness where notches are missing, the fullness of the average sleeve should extend four inches in front of the shoulder seam and three inches back of it, covering a distance of seven inches in all.

EMMA L. H. ROWE.

Try placing some clean newspapers on your stove, table, etc., and note how it adds to the general appearance of your kitchen.

Buttonholes are always cut vertical where there is no strain or pull of the material, such as the front opening of a shirt or shirt-waist, the placket of a cuff, or the front or back closing of a baby's full gown.

Where there is a probable strain, such as that demanded of a collar-band, cuff or back opening of a shirt-waist, the buttonhole is always cut horizontally, crossways of the material.

EMMA L. H. ROWE.

German Cream Pie—Crust: One cupful of sifted flour, one-half saltspoonful of baking-powder, one rounding tablespoonful of sugar, one-third cupful of butter, one egg. Cut the butter in, the same as for pie-crust.

Filling: One and one-fourth cupfuls of milk or cream, three rounding tablespoonfuls of sugar, one rounding tablespoonful of flour, yolks of three eggs, one-half teaspoonful of vanilla. Cook in double boiler until thick.

To make the meringue, take the whites of the eggs, three tablespoonfuls of sugar and a few drops of vanilla. Bake crust first, then add filling, then meringue and brown lightly.

Mrs. L. V. W.



Carrot Croquettes

Carrot Croquettes—Boil a number of carrots in salted water until tender, then drain and mash. Season to taste with pepper and butter, add a well-beaten egg and when cool form into carrot-shaped croquettes. Dip first in crumbs, then in egg and again in crumbs, fry in deep fat, drain and insert a fresh sprig of parsley in the end of each croquette to resemble a carrot top. Serve with white sauce if desired.

Ginger Cookies—One cupful of light-brown sugar, two thirds of a cupful of butter, one-half cupful of cold water, two thirds of a cupful of molasses, one teaspoonful of salt, one egg, one large tablespoonful of ginger, one large teaspoonful of soda with flour enough to make thick batter. Drop by teaspoonfuls on a well-greased pan and bake in a moderate oven. These are splendid if made properly.

Mrs. T. R. S.

Rice Cakes—One cupful of cold, boiled rice, two eggs, one-fourth of a cupful of sugar and a pinch of salt. Mix all together and fry brown in butter.

Mrs. R. P.



Baked Tomato

Baked Tomato—Select large, ripe tomatoes, cut a round from the top of each and carefully remove the centers. Fill the cavities with corn and nicely seasoned with salt and pepper, moisten with a spoonful of cream, cover with buttered bread-crumbs and bake in a moderate oven until the tomatoes are tender. Served hot for luncheon or dinner, these are delicious.

MARY H. NORTHEED, Salem, Mass.

Caraway-Seed Cake—Sift into a pan one quart of flour. Work in two cupfuls of butter, mix in six tablespoonfuls of strong fresh yeast, add as much warm sweet milk as will make a soft dough; knead well and set in a warm place until light. Then add two cupfuls of sugar and one-half cupful of caraway-seed, adding a few seeds, then sugar, as the dough is kneaded. Work well and add a small teaspoonful of soda dissolved in warm water; cover and let rise, then place in a buttered pan and bake.

Plain Jumbles—Two cupfuls of sugar, one cupful of thick sour cream, three eggs, one teaspoonful of soda, flour to make a moderately thick dough. Bake in a hot oven.

A Cooking Suggestion—You may keep your creamed potatoes hot and fresh by placing a saucepan of boiling water on the stove and setting in it the vessel containing potatoes. They will neither burn nor thicken.

Ocher for Lace Curtains—Keep your tan and ecru curtains fresh and new looking by using ocher in the starch or rinse water. It gives a fresh tint and does not streak nor spot. Dissolve a little powder in water and strain into the water. White net curtains can be dyed a deep ecru by dipping them in this solution. Ocher can be obtained at any store where paint supplies are sold, and is inexpensive.

Mrs. D. J. Y.

To Remove Ink from Colored Goods—Citric acid will remove ink from colored fabrics without destroying the color. Make a solution of the acid with water; apply to the ink-spot and press with hot iron. If one application is not efficacious, apply until ink is removed. The iron must be hot, and the acid must be immediately washed out, or it will damage the material. This has been tested.

Mrs. R. S. M.

Starching with Skim-Milk—When laundering black calico, black undershirts, red calico, etc., if skim-milk is used instead of starch, the garments will be stiff as when new and there will be no white spots on them, as is often the case when dark clothes are starched with laundry-starch. Be sure that the skim-milk has stood long enough for all the cream to separate. Strain before using. Be sure to iron the clothes on the wrong side.

Mrs. E. O. S.

To Wash Soiled Towels—Having some cotton towels that were very hard to wash clean, I tried adding turpentine to the boiling suds, allowing the towels to boil hard for twenty minutes. I used three tablespoonfuls of turpentine to a half boiler of water and one-half bar of white soap. The turpentine quickly removes the dirt and bleaches the towels. Try this for bath-towels, too.

Mrs. E. O. S.

How to Keep Cheese—Our family is very fond of good cheese. Welsh rarebit is a frequent dish upon our table, but I have always found great difficulty in keeping cheese. Upon trial, I discovered that to cover all cut surfaces of the piece of cheese with a good coating of paraffin would perfectly preserve it, keeping it sweet, moist and free from mold. Heat the paraffin as for covering jelly, and with a spoon carefully cover the freshly cut surfaces, allowing the hot paraffin to run well into any holes in the cheese. Repeat the process several times until a thick coating is obtained, then wrap in paper and tie. It will keep almost indefinitely, retaining its original sweetness and moisture. The paraffin is easily removed with the point of a knife. After using, the fresh cut should be covered. This discovery enables me to have on hand good cheese, ready to use at any time.

Mrs. H. C.

To Preserve Cider and Grape-Juice—I have never used acid nor chemicals of any kind in the preservation of foodstuffs, and have been very successful in keeping grape-juice and cider sweet just as long as desired, and without any preparation except heating and sealing. This is not to be confounded with boiling and skimming, as we never heat above two hundred degrees, and one hundred and eighty-five is sufficient. In order to have the best quality, the juice should be heated in an enameled or earthenware vessel as soon as extracted. If you have no thermometer at hand, the proper temperature may be determined by letting it simmer, but remove before it boils. The juice or cider may be bottled or canned at once, but, as a great deal of sediment will form in a few days, it is much better to allow it to settle overnight or for twenty-four hours, then drain off from the sediment and filter through a flannel bag, heating again to the desired temperature and sealing in glass jars or bottles, thoroughly sterilized by having boiling water poured in them. If bottles are used, cork tightly and pour melted paraffin over the stopper. Sealing-wax will answer, but is more difficult to remove. A very nice way to fill the bottles is to put the liquid in while cold, allowing for expansion. Place the bottles or jars on a board in the wash-boiler and fill with water. Set on the stove and heat slowly; when the temperature is one hundred and eighty-five degrees to two hundred degrees, seal, being careful to see that the bottles are about full.

Care must be taken not to boil the juice, whether it is cider, grape or other fruit-juices, as the boiling impairs the flavor as well as the color. There is no limit to the size of the vessel. We have had good success keeping the cider in a five-gallon jug.

When opened for use in winter, it will keep longer than if it were fresh cider, but if opened in warm weather, it will become "hard" in a short time, just the same as fresh cider.

Anyone who has been successful in canning fruit will have no difficulty preserving grape-juice or cider. They are both wholesome and palatable. Grape-juice is as necessary in a sick-room as it is delightful to serve as a refreshment. H. F. GRINSTEAD.

Sweet-Potato Cake—Partly cook some sweet potatoes, peel and grate one pint; mix with one cupful of butter, one cupful of sugar and one teaspoonful of mixed spices. Add slowly six well-beaten eggs. Beat the mixture until light. Pour in a shallow, well-greased pan and bake until puffy.

Good Reading for Sunday

Was It Your Hand?

By Edgar L. Vincent



T USED to stand in the window of a second-hand store down-town. The place was dismal. Cobwebs hung over the shelf upon which it stood. Few ever came there, and the few who did seemed always to be in trouble. All around it were wrecks of one kind or another—little shoes, empty vases, their flowers faded and dim, treasures of other days, lost out of their place and almost forgotten.

Then somebody looked in at the window at the old violin. Something about it made his heart beat a bit more quickly. He stepped inside and took the dusty thing in his hands. Poor, bruised, stringless, voiceless violin! But he took it home. He brushed away the cobwebs, he put a new coat of varnish over the marred wood, put new strings over the bridge, carefully tuned it, held it lovingly near to his heart and listened to its soft pleadings.

After this—ah! the joy of those words!—he tucked the instrument up under his chin and drew the bow across the strings. find it! Lean hard on me; I'll stay close by you till you are strong enough to go on alone once more." Then the music will come back into the soul! Then hope will spring anew! Then the song will break from the heart and the world will have received its own once more.

Don't you know the need of a hand to do this for men? Do you not know that that hand so sorely needed is yours? Do not say, "I have my good clothes on! Look at these pretty gloves! I might soil them if I stooped to touch that man! I can't do it! It is all right for you; but for me—"

And yet you can do that which I cannot. This is the place for you. I'll lift where I can; but that does not make it better for you. Give him your hand; no other will do; he is waiting for you. What if the coat you wear does get a spot or two on it! Better there than stains on your heart. Suppose your gloves should not look quite so well afterward as they do now. Your soul will glow with a sweeter, purer light, and all the world will love you the more for your good, kindly deed.

Could this be the violin which yesterday stood in the window down there on the back street? Why, just listen! Your heart leaps at the sound of the passion which thrills those strings! You laugh, you brush away the tears, you waken to go back to life with new hopes and higher aspirations just because of the music which comes from the heart of that old violin.

What was it they said just now? "That man is lost—past redemption!" You knew him when his eye was as clear and his hand as steady as that of an athlete. Something happened to him. He lost his way and went down in the swirl of the waterfall. So the world has no use for him. That is the way with the world. The man it crushes it throws away like an empty shell. It sucks him dry and tosses the wreck out to be trodden under the foot of men.

What next? The dusty place in the window, the cobwebs, the lonely hours of waiting, who knows for what? Suppose some kind hand comes to the rescue? What if that hand lifts up and brushes away the dust? What if a kindly voice whispers, "Don't give it up! There is pure gold in you still! Let's dig till we

But that is not all. Your own gain will be great, but greater by far the wealth you will have added to the world's treasure. He was lost and he is found! He had wandered out of the path and lay by the side of the road, a broken, bruised, helpless thing. No music in his soul—only a shadow and despair. Is he telling you now what you have done? Listen.

"You have helped me back! You have loved me when nobody else cared! You have made life worth while for me again! You have saved me, under His grace, for time and eternity!"

Hark! Is not another voice speaking, too? Sweeter, purer, more tender than all!

"Inasmuch as ye did it unto one of the least of these, my brethren, ye did it unto Me!"

An October Thought

PUT a seal upon your lips and forget what you have done. After you have been kind, after love has stolen forth into the world and done its beautiful work, go back into the shade again and say nothing about it. Love hides even from itself. —Henry Drummond.

Our common mother rests and sings
Like Ruth among her garnished sheaves;
Her lap is full of goodly things,
Her brow is bright with autumn leaves.
—Whittier.

The Back-Corner Bunch

By A. E. Winship

MRS. DUNCAN BEAMAN is the wife of a thrifty young business man in a Michigan village ten miles from the railroad and thirty miles from any city. She was the teacher of a rural school when she married a member of the school board five years ago. There was in the village a bunch of big boys—would-be young men—who had left Sunday-school and all church affiliations.

It was quite an event in the church when Duncan Beaman brought into the church activities this socially attractive and educationally efficient young woman. To the pastor this was an important event, and she must take a class in the Sunday-school, which honor she promptly declined. When she had the situation well in hand, she said to the pastor, "If I may have that back corner of the room away from the school, if you will not call it a Sunday-school class, and if no account is taken of me by the school or its register or collections, and if you won't come near us, I'll try to get a lot of the big boys to come in there Sunday noon after the opening services of the Sunday-school."

The conditions were most exasperating to the pastor, and much more so to the superintendent, secretary and treasurer of the school. They wanted to talk it over with her, but she would not have one word with anybody. She had made her conditions, and they could accept them or not.

It was a long time before the conditions were accepted, and in the meantime it was the talk of the parish and of the whole community, so that when they accepted her terms, and she wrote the daintiest kind of notes, no two alike, to a lot of big boys, asking them to spend the time from 12:15 to 1:00 in the back corner of the church, every boy not only came, but wrote the best note he knew how, thanking her for the invitation.

She had no Sunday-school leaflet, and only used the Bible at the close when it would help out. She just talked with those boys about their life of the week before so far as they wanted to talk about it. They always started off with some question like this: "Mrs. Beaman, what would you do if, and if, and if?" She would have them talk, and they would talk.

She always declined to tell what she would do, saying: "Why, I am not a boy, and I don't know what I would do." When the case was entirely clear, she would often read a verse or two, or parable, from the Bible. She would allow no discussion of theological questions, saying that she didn't think it would help them in their life.

Of course, the pastor had all sorts of emotions, and so did the superintendent of the Sunday-school, and the deacons expressed themselves somewhat forcibly.

But the bunch in the Back Corner grew, and there were never any absences.

One Sunday the pastor preached a sermon on a question he had heard had been discussed in the Back Corner, and Mrs. Beaman wrote him that if he ever did anything of that kind again, she would feel obliged to withdraw from membership in the church and invite the big boys to her home for the Sunday forenoon.

But the pastor didn't need that note, for the boys had made it the talk of the stores, shops, hotel and homes, and they said: "If that man butts in on the Back Corner again, there'll be trouble for him." There was no noticeable change in the boys anywhere. They talked everywhere and on all occasions about the Back-Corner bunch. They were inclined to insurgency on many questions of church and society. They were loud in their praise of Mrs. Beaman, especially because she refused to advise them, on the ground that she was not a boy. They held her up as an example to their mothers.

In her heart Mrs. Beaman knew that it was a good thing for those big boys, but she was not at all satisfied with many of the results. The fellows were getting to be altogether too self-conscious, too important for her peace of mind, and they magnified her and her way of doing things in a way that humiliated her. The pastor, Sunday-school superintendent and many of the women were seriously considering taking official action and abolishing the bunch.

But that was not easy, because Mrs. Beaman was giving the parish a new social experience. She had most delightful dinner-parties, home entertainments and other social functions to which the pastor and superintendent were always invited in an ex-officio way. Really Mrs. Beaman had completely muddled church affairs.

There was a culmination. It was the

first really glorious spring Sunday, and it came on Easter, and when Mrs. Beaman came out of the church some time after the close of the exercises, she gasped as she saw her boys playing ball in the park in front of the church. No one was ever more chagrined or more at her wits' end than she as, with her husband, she crossed the park and met the greetings of the boys with her sweetest smile and a pleasant response.

For the first time Duncan Beaman was a bit nervous over the situation. He knew what the gossip of the village would be that afternoon, but no word passed between them on the situation. They walked in silence until she said as unconcernedly as possible: "What a lovely bonnet George's wife did have!"

They had been in the home but a minute when the telephone rang, and Duncan, answering it, said: "The parson would like to speak with you, Sis."

"Now, Mr. —, if you meddle with my affairs, there will be real trouble for you. I am abundantly able to mind my business, and I expect you to mind yours." And she hung up the receiver, and the parson had spoken no word.

The next Sunday Duncan said, as they were crossing the park on the way to church: "Well, Sis, what are you going to do to your baseball boys?"

"Can't you mind your own business, either?" she said in her sweetest tone and with her most entrancing smile.

She was astonished to have every boy in the Back Corner before the opening exercises, and when they were over almost in one voice the boys said: "Well, Mrs. Beaman, what do you think about our playing ball last Sunday?"

"That is not my problem. I'm not a boy."

"Well, Mrs. Beaman, it was downright mean."

"It was wicked."

"We are all ashamed of it."

"We carried our independence too far."

"We never saw where we were headed till after that."

"You may bet your last dollar that we fellows are going to stand pat a lot after this."

"Didn't you notice that we were all in church this morning? We are coming all the time now."

Mrs. Beaman couldn't keep the tears back. She couldn't speak. She didn't need to, for the boys just talked a streak, tumbling over each other in announcing their new theory of being a boy.

Next Sunday the parson preached as he never preached before, and Mrs. Beaman thanked him for it, and so did the boys as they rushed up to speak with him on his sermon on "The Glory of Youth."

If it weren't for the shadows of night, we wouldn't appreciate the brightness of the sun. God sends us a shadow now and then, that we may better appreciate our blessings.

If you say something good about a man, it never makes any difference if he finds out you've been talking about him, for if you've given him more credit than he deserves, he isn't going to take you to task about it.

Friends

FRIENDS, in this world of hurry
And work and sudden end,
If a thought comes quick of doing
A kindness to a friend,
Do it that very moment!
Don't put it off—don't wait!
What's the use of doing a kindness
If you do it a day too late?
—Charles Kingsley.

Danger in Evil Habits

By Charles Henry Prather

IN THE semi-tropical forest glades of New South Wales there may be seen the *ficus marcrophylla*, or native fig, encompassing with its aerial roots and stems a good-sized eucalyptus, or other tree, which it has taken full possession of and which it is surely enclosing as in a living tomb by the slow but fatal encroachment of its body. In a short time it will have crushed and sapped out the life of the tree which at first gave it support. So it is with many evil habits, such as drinking, gambling, swearing; all of which sit lightly on our natures at first, but after a while their fatal embrace is keenly felt, and then comes with ever-tightening grasp their strangling and stifling effect on the soul, and finally both soul and body are lost in the deadly embrace.

Living and Working Amid Obscurity

By Orin Edson Crooker

THERE is a good deal of humble work in the world, largely for the reason, no doubt, that much of this kind of work is necessary. Not everyone can be a great artist or a great musician. There must be many who can paint and sing only a little. Not everyone can fill a conspicuous place in life; there are countless obscure posts to be filled by someone. It is so ordered and ordained by God.

Most of us yearn for the opportunity to do great things—things that will bring us fame and renown. Instead, we find ourselves tied down at home. We must needs care for our invalid father or mother; there are brothers and sisters to be kept in school; the little home must be kept together; someone must work to keep the mortgage from swallowing the farm. The dreams we dream will never be realized; these common, ordinary tasks stand in the way.

Little do we stop to think that perhaps these humble tasks may be glorified in the sight of God and that in the Book of Life they may be written as among the greatest and grandest of the works of men. Only God can see, perhaps, the great results that may come from the humble work that we accomplish in some obscure corner of the earth.

Years ago a little country church was presided over by a country minister of limited talent and attainments. His name has been forgotten by all save a few. His was an obscure work in a humble field. All his life he yearned for a great city church and large congregations, but he never rose above the little country parish in which God had placed him to minister to a handful of people.

One night, however, in the midst of a series of meetings, his fervor touched the heart of a young boy in the audience who resolved to go into the ministry and devote his life to God. Under the guidance of this country pastor the start was made. To-day the minister who gave this boy the incentive for his life work is forgotten, but the boy, now grown to mature manhood, preaches regularly to one of the largest congregations in the country, and the thousands who flock to hear him Sunday after Sunday bear witness to the power of a life, which, although lived in obscure and humble surroundings, supplied the necessary impetus for the making of one of the most powerful pulpit orators of the day.

One night a man took a little taper out of a box, lighted it and began to ascend a long, winding stair.

"Where are you going?" asked the little taper.

"Away up into the top of the light-house," said the man.

"And what are you going to do up there?"

"I am going to show the ships out at sea where the harbor is. Some ship far out on the stormy ocean may be looking for our light even now."

"But no ship can see my light," complained the little taper. "It is not large enough, or bright enough."

"Never mind," replied the man, "your light is small, sure enough, but keep it burning and leave the rest to me."

On up the winding stair he went, carrying the little taper. With it he lighted the great lamps that stood waiting with their powerful reflectors to send their beams of light far out over the troubled waters. Soon they were burning brightly. The little taper's work was done.

You may be only a little taper, but you have your work to do. It may be a humble work, but it is ordained of God. It has been given you to do—perhaps because you can do it better than someone else. Who knows but from it may come even greater things than you dream? Just keep your light burning and leave the rest to God.

It's always better to make the mistake of doing too much than of doing too little. —O. E. Crooker.

Mothers

MOTHERS are the queerest things! Member when John went away, All but mother cried and cried When they said good-by that day. She just talked, and seemed to be Not the slightest bit upset— Was the only one who smiled. Others' eyes were streaming wet!

But when John came back again On a furlough, safe and sound, With a medal for his deeds, And without a single wound, While the rest of us hurraed, Laughed and joked and danced about, Mother kissed him, then she cried— Cried and cried like all git out! —National Magazine.

It is Like a Lash Across a Woman's Face: Said a Man When He Read Mr. Kipling's New Poem

It is a "woman's poem," called "The Female of the Species."

With a sting that fairly bites, Mr. Kipling lashes a type of woman: the female of a species that, he says, "is more deadly than the male," and puts on record a poem that will make thousands of women uncomfortable and will take a place all its own in the modern feminine unrest.

As a direct contribution to the "Votes for Women" agitation, the poem is a masterpiece.

In no other American periodical will this new poem by Rudyard Kipling appear save in the November LADIES' HOME JOURNAL.

For Sale Everywhere at 15 Cents

THE CURTIS PUBLISHING COMPANY, PHILADELPHIA

Two Words That Every Woman Should Remember

A noted woman-doctor tells what is "the greatest enemy that a woman has:" what women do to fight it, and how thousands of women bring about heart-failure and death by doing just the wrong thing. And all a woman, to avoid danger, has to do is to remember two words and keep her eyes open for them.

It is really an actual instance where two words might save the sufferings and deaths of thousands of women. Every woman should read this article. Husbands, too, for that matter, to help their wives remember.

It is in the November LADIES' HOME JOURNAL.

15 Cents Everywhere

For the Winter Hat Smart Trimmings That Count

By Emma L. H. Rowe



Small rosette and loops of velvet for the child's hat

IN PLANNING the winter hat, one must consider not only the shape, but the trimmings.

The trimmings here illustrated, while up-to-date and modish, are not difficult to make and require no special skill. They can be made from new materials at a comparatively small cost, or from old materials, steamed, pressed and otherwise freshened.

The first illustration shows a small rosette and loops of velvet ribbon. Two of these rosettes constitute a charming trimming for a child's hat. The rosettes should be placed at each side of the center front, about three inches apart, with the loops extending around the crown and toward the back.

Each rosette will require one and one-half yards of velvet ribbon, two and one-half inches wide.

There are six loops to each rosette, sewed into position. Each loop measures two and three-quarter inches in length, requiring five and one-half inches. Form one loop after another, sewing each into circular position as it is made. Cut off two and one-half inches at the end of the ribbon; round the four corners to form a circle. Sew a row of fine running stitches around the circle; draw the edges almost together. This will form a little puff. Sew the puff at the center of the six rosettes. At the side of the rosette make an under loop five inches long (requiring ten inches of ribbon). Then allow the remaining end (eight and one-half inches) to extend from under the long loop.

Apply to hat as above suggested.

Another effective way to apply this rosette trimming on a child's hat is to use but one rosette. In such case, the rosette should be slightly larger, and the side loop and end of ribbon somewhat longer. About one and seven-eighths yards of ribbon, three inches wide, will be required. Make the loops of the rosette fully three inches long (requiring six inches for each). From the center of the rosette measure eight inches along the ribbon. This should mark the end of the loop. The loop need not be doubled its full length. Measure another four inches. This point should mark the depth of the long loop. Tack lightly in place. The remainder of the ribbon can extend around the crown of the hat. The rosette should be placed at the left side front, with the loop and long end of ribbon extending toward the right side and around the crown. Slash the end and allow it to slant gracefully to the edge of the brim.

The center illustration shows a large tied rosette of silk ribbon for a young girl's hat. Two and one-quarter yards of ribbon, five to six inches wide, will be required. Measure and mark (with pins) the ribbon into twelve-inch lengths, starting to measure six inches from one end. This six-inch piece is reserved for an upper graceful end.

Hold the six-inch mark between thumb and forefinger of the left hand. Form the ribbon into a backward-turning upper loop, bringing the first twelve-inch marking also between the thumb and forefinger of the left hand. Form a second loop, this time a lower backward-turning loop, bringing the second twelve-inch mark between the thumb and forefinger of the left hand. Form a second upper loop, a second lower loop and a third upper loop. Then bring the end of the ribbon up, loosely, over the thumb of the

left hand, down under the centers and up through the loop which is over the thumb. This forms a large double center, with the ribbon gracefully massed together. Miter both ends of the ribbon as a smart finish.

A bow of this character can be used on a medium or large hat. It can be placed at the left side front and tacked to the crown in upright fashion. It can also be placed directly on the top of the crown, a little to the back of the hat. The loops must then be spread and tacked in rather flat formal effect to the sides of the crown.

The rosette can also be coaxed out of the round rosette form into the long cross-bow, with two loops and two ends at one side, and three loops at the other side. This long effect will look well placed directly at the back of the new bonnet-shaped hat.

In fact, the home milliner can do almost anything she wishes with a rosette of this type, if she once loses her fear of the bow itself and does not hesitate to pull and twist and coax it into different desired shapes to conform to the shape of the hat she is trimming.

The third illustration shows a winged novelty of velvet, lined with silk of a contrasting shade or color. This trimming is suitable for the small tailored hat or bonnet. It gives the height so often desirable, and at the same time, in spite of its simplicity, it adds a smart, modish touch. A novelty of this type looks well on the plain felt shape, and on the draped toque, turban or bonnet of velvet or silk.

One-eighth yard of velvet, cut on the straight, will be required; also one-eighth yard of silk of a much lighter shade than the velvet.

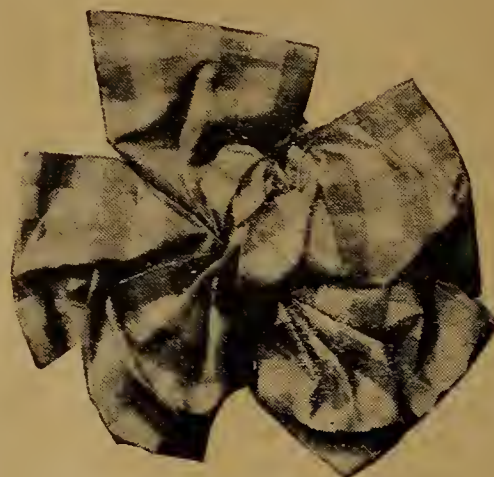
Remove a three-inch piece of the velvet for the cross-band. Turn down the edge of the large piece of velvet one-quarter inch all around and catch-stitch lightly into

place. Slip fine milliner's wire under this hem, entirely around the strip. Cut the silk the same size as the velvet strip. Turn under the edges of the silk one-eighth inch and baste as a facing to the velvet. Blind-stitch the silk facing to the velvet. One inch below the center of the velvet double the velvet piece, giving it a twist so that both velvet sides are facing you. Turn under the edges of the little reserve strip; make a cross-fold in it and place almost at the base of the doubled velvet piece. The shorter velvet end should be uppermost. Turn back on itself the inner side edge of the shorter piece, to show the contrasting silk lining.

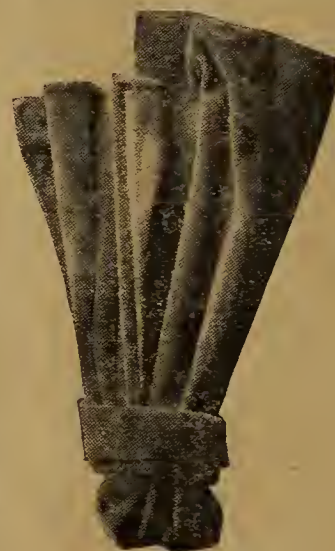
This smart-looking wing effect can be worn at the left side front; also at the right side front or the right side back. Sometimes two are placed at the center front, with perhaps three inches between them. They are then curved slightly toward the back of the hat, conforming to the shape of the crown. The milliner's wire will keep them in the desired position.

There are really few set rules in millinery. Wherever a bit of trimming seems the most graceful and becoming, at that exact spot the professional milliner places it. The novice is usually far too timid about using her own judgment and taste and her intuitive knowledge of what she herself can wear becomingly. "Our doubts are traitors and make us

lose the good we oft might win." Do not be afraid to adapt what you have to what you need. For instance, the rosette and loop in the first illustration, if made much smaller and of appropriate color, can be used in perfect form on the bonnet of an elderly woman. The really clever milliner is the one who adapts readily. Any one of these attractive bows are sure to help you make a success of a home-trimmed winter hat.



Large tied rosette of ribbon for the young girl's hat



Winged novelty of velvet for the small tailored hat or bonnet



OUR YOUNG FOLKS



The Princess, the Prince and the Proxy

By Tudor Jenks

Part II.



NEAR-BY farmer's son was Jack. He used to do all sorts of work for the banished royal family, who worked him hard and paid him little. But he was one of the finest young fellows in the world—plucky, straight, and bright as a new dollar. He followed the prince up to the latter's room, and then Prince Bob read over the circular to him. "But I'm not a prince," said Jack. "They don't say anything about princes," Bob replied. "All you have to do is to go in and win, and then I'll marry the princess." "But is that fair?" Jack asked. "Sure," said Prince Bob. "How do you know?" Jack insisted. "I asked 'em, and they said so," Prince Bob answered. (And all the time he hadn't—not a single word.)

"They said I might send anybody over in my name, you know. And then, if you win the competition, I'll give you all the money I've got in my bank." (He had just eighty-four cents in his bank, and one of his quarters was Canadian.) "It's a big chance, Jack!"

"All right," said Jack, "if you'll give me a letter to show it's all right for me to act in your place and in your name."

"Sure I will," Prince Bob answered. "But, of course, you mustn't show it to anyone unless you win." "Why not?" Jack inquired. "Don't you see? If you are beaten, why then nobody knows who you are, and it doesn't hurt either of us. And if you win, why then the letter makes it all right."

"I see no harm in that," said Jack, "and I'd like to earn the money. How much is there in your bank?"

"Something over eighty," said Bob.

And, of course, Jack thought he meant "eighty dollars," and was well pleased. So the two separated, Jack to start on the long walk to Mountainia, and Bob to get into mischief and chuckle over his smart trick.

"It'll be a good joke on that Dimplechin girl and her folks!" he said to himself, as he sneaked away from the palace, to get out of doing either his lessons or any work about the house.

(But—keep this a secret!—his fairy godmother, with her invisible cloak on, had been right there in his room all the time and had heard the whole plot—every word! You'll see what came of that in a minute.)

Meanwhile Jack trudged merrily away on his road, with Prince Bob's letter safe in his pocket, and with his Sunday suit on, for he meant to do his best to earn the money Prince Bob had promised.

When Jack arrived in Mountainia, he was treated like a prince, but said that he would not give his name until the competition was decided one way or another. Others had come in the same way, pre-

ferring not to be known unless they should win the hand of the lovely princess. So Jack's letter was filed away with others till the competition was decided, all competitors being numbered if they did not give any names.

Princess Dimplechin sat on a high throne beside her royal papa, under a canopy of pink silk fringed with gold, and looked so lovely that the whole great field would have been crowded like a Yale-Harvard football match even if tickets had been fifty or seventy-five cents apiece, instead of being free.

Her complexion was so perfect that no peaches could be sold on the grand stand, because near her they didn't look ripe, and her hair was so shiny that—but who can describe a beautiful princess?

Just imagine the two loveliest girls you ever saw, and then double that, and then add something more, and it will be not half good enough to be like this attractive Princess Dimplechin, who was much more handsome—does than handsome—is besides her beauty. And then the young men entered into



"Prince Bob . . . strode haughtily forward to face the irate father of the princess"

competition for her slender, lovely hand. And not one of them for a moment stood a chance after Jack began. He was first in everything, and then beat them all in turning handspins around the field, while Princess Dimplechin waved her handkerchief of lace into bits.

He was declared victor amid the cheers of the loyal subjects and sank gracefully upon one knee before the royal pavilion, while the princess looked rosier than a rose at sunset in an evening in June.

"We declare this young man, whose number is 384, to be the victor," declared the royal father of Princess Dimplechin. "Let us now learn his noble name."

A page handed him the envelope, and it was hastily torn open. A frown gathered upon the royal brows, and the royal smile faded, as he read, in a terrible voice:

"This paper says: 'The Chore-Boy Jack has appeared as proxy for Prince Bob of Swampland, who claims the Princess Dimplechin as his bride.'"

"What means this insult?" demanded the angry monarch.

At this moment Prince Bob, who had attended in the disguise of a peanut-peddler, threw off his ragged garments and strode haughtily forward, to face the irate father of the princess.

"I am Prince Bob," said he in scornful tones, "and this young man is my menial. I sent him to compete in my name, and in my name he has won the prize. Where is there aught in the terms to say a prince may not compete by proxy?"

The king turned pale, and the Princess Dimplechin shuddered, for Prince Bob was ugly and anything but good-tempered.

Yet—how to answer the impudent claim of this very disagreeable young man?

While they were thus perplexed, a disturbance arose at a far part of the great arena.

"Look, look!" cried the people. In a lovely flying-car drawn by white pigeons, harnessed in blue ribbons, with an adornment of silver bells, came Prince Bob's fairy godmother, the bells tinkling merrily.

"Hold on!" she cried, "and I'll soon settle this to the princess's taste!"

She turned to Prince Bob with the scathing words:

"You horrid boy—aren't you ashamed of yourself?"

"No, I ain't," Prince Bob grumbled (he had forgotten the time when he had been turned into a mop!). "I want to know whether there is anything about proxies in the terms?"

"Nothing," said his fairy godmother, "and the king must award you the winner!"

"There, now!" said the ugly Prince Bob. "And so I claim the hand of Princess Dimplechin!"

"Wait a moment!" commanded the fairy godmother. "If you can send someone else to compete in your place, why, then the princess can send someone to marry you in her place. Nothing was said about proxies," she added smartly.

Oh, then the people all clapped and applauded till they scared the birds for a mile around!

"And," added his godmother, "I think I can pick out a wife for you who will—"

"Wait, wait!" exclaimed the wicked prince (suddenly remembering the window-mop). "I give up my claim, and I think I'll go home! I'm not feeling very well to-day," and with a sickly smile he slunk away, and has not been seen since.

"As for this young man," the fairy godmother went on, calling Jack to her side, "he is by rights a noble prince! Come; we will now return to the royal gardens and have ice-cream and cake, candies and soda-water."

Soon after they were married and lived happily ever after.

The Letter-Box

DEAR COUSIN SALLY—It seems such a very long time since I wrote you a letter. Really, Cousin Sally, our page is the best one in the paper, and there are many good pages.

I like the Bulletin Board. This summer I attended the Teachers' Normal in Ponca and have been doing all kinds of needlework. I embroidered a white pocketbook for myself and one for my chum.

I love all kinds of housework. I have completed the eighth grade and received my diploma, also a gold medal for the highest general average in my studies.

I think Elizabeth Smith a studious girl and I congratulate her. Cousin Sally, you must not play the "keeping out" part, but let your "pet" game be "Keep In."

Hurrah! hurrah! for the C. S. C. What a busy, happy club are we! With a leader so jolly and eager and fine, I'll be a member the rest of my time.

Your loving cousin,
GENEVIEVE D. LUCKETT,
Age Fifteen,
Ponca, Oklahoma.

Our Bulletin Board

The prize-winners in our August poem contest are May Y. Anderson, age 14, Thornton, Idaho; Eloise Chase, age 16, South Royalton, Vermont; Hilda Fisher, age 8, Edgewood, Iowa; Evelyn Farr, age 13, New Castle, Colorado; Morris J. Welch, age 11, Nevada, Missouri; Mary Herr Stively, age 13, Collins, Pennsylvania.

Wilhelmina Hill of St. Johnsville, New York, is very eager to exchange post-cards with some of the cousins who live out West.

By blacking her uncle's shoes, Dollie M. Laneave of Westboro, Virginia, earned five cents to pay for a C. S. C. pin. Isn't she a brave little girl?

What is the best new riddle you know? Send it along to Cousin Sally.

Cousin Sally would like to have reports from all secretaries of branch clubs by the first of January. Try to have your letter in by December 1st.

This summer Marguerite Davis of Fremont, Ohio, made a pillow-top for the county fair? Did you compete in your county fair this fall?

Cousin Sally would like to hear how many of her cousins won prizes at the county fairs this fall.

One of the finest little housekeepers in our club is Annie Mary Winn of Stewart, Alabama. She can sweep, dust, churn, dry dishes, cook and bake. Cousin Sally's mouth watered to read of her pies and cakes.

One little girl lost a prize because she neglected to write her address on her poem. The postmark was too blurred to read.

Honor Roll

THE following boys and girls won honorable mention in the poem contest:

Frank Conners, Milford, Indiana; Alice W. Adair, Paris, Kentucky; Anna S. Wolf, Bennington, Kansas; Fay Bryan, Monroe, Indiana; Lois Westall, Greenup, Illinois; Mary Anderson Gilliam, Petersburg, Virginia; Fannie Cooper, Brush Prairie, Washington; Herbert D. McCluskey, Tallahassee, Alabama; Rush Harder, Theresa, New York; Ruth M. Lacey, Accotink, Virginia; Mildred Goundrey, Watkins, New York; Eunice Combes, Paintsville, Kentucky; Fay Fazenfeker, Dawson, Pennsylvania; Ethel P. King, Milton, Kentucky; T. Leslie Welch, Nevada, Missouri; Elizabeth Helen Styczynski, Westhampton, Massachusetts; Ellen Eakin, Derby, Ohio; Carroll Cromwell, Camp Chase, Ohio; M. Evelyn Bisbee, Williamsburg, Massachusetts; Florence D. Janka, Lapeer, Michigan; Mildred Hope Isaacson, Phillips, Wisconsin; Mabel R. Calvin, Bryan, Ohio; Marguerite Gordon, New Lexington, Ohio; Valera Applegate, Gladbrook, Iowa.

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All for the Asking

ONE for each month in the year with horoscope of persons born in that month. You and your friends will get lots of fun and entertainment out of these cards. Simply send three two-cent stamps to pay the postage in mailing. We make you this unusual offer simply to get acquainted with others who appreciate post-cards; and just as soon as we receive your letter we will tell you how to get a set of

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all postage and mailing expenses paid. Send three two-cent stamps right away, as our supply of these cards is limited; but we guarantee a set of these new Fortune-Telling cards by return mail if you write us at once.

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SPRINGFIELD, OHIO

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Splendid grade Brussels Rug, 9x12 ft., \$11.15. Famous Invincible Velvets, 9x12 ft., \$16. Standard Axminster, 9x12 ft., \$18.50. Fine quality Lace Curtains, 45c per pair and up. Tapestry Curtains, Wilton Rugs, Linoleums at Mill prices.

Write to-day for our NEW ILLUSTRATED CATALOG, No. 14. Sent free. Shows latest designs in actual colors.

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How to be Prettier Than You Are

The Care of Your Complexion

By Louise D. Mitchell



A good complexion—not necessarily a faultless one—seems to be the foundation of all facial beauty, it is clearly to that one point in your personal appearance that your attention should be directed in order to make you not only prettier than you are at the moment, but, perhaps, give you some claims to beauty at all.

A poor complexion is a result, not a cause. It is patient Mother Nature signaling to you that all is not well with you. She is trying to tell you that there is congestion "on the road" somewhere and that, therefore, no "through trains" in the way of circulation can be expected until this congestion is removed. A very wise physician once said that "there is only one disease, and that is congestion; and only one real cure, and that is circulation." I want you to keep this fact clearly before your mind and learn to apply it to all physical disorders you may have, for it is one of the greatest truths that ever graced the world and will be of immense help to you in your efforts to trace your bodily ailments to their rightful source, and, also, most of your spiritual ones.

Upon this basis, therefore, I would say to you, do not waste time and intelligence applying cosmetics to that poor face of yours in order to clear up its skin defects, but look within for the cause and so effect your permanent cure. As an aid to you in this, I will tell you that a bad complexion usually arises from one of two causes—sometimes from both: either indigestion, or so-called "internal troubles." And until these are corrected your complexion will continue to remain spotted, or mud-colored, or distressingly red or yellow, and I am afraid you will find it getting worse instead of better as time passes.

Cleanliness stands paramount as a beautifier. But this takes many forms besides that of bathing with soap and water. Indigestion is a sign of uncleanness in the digestive tract. It needs the "broom" of circulation to sweep out the clogged-up matter there and keep the "dust" from your complexion. If no other way suggests itself to you, in order to effect this,

starve yourself, and drink plenty of water during the period of starvation. Or, if strict starvation seems appalling to you, reduce your food to nothing but milk for a week at least. The high value of buttermilk, too, is now so well known that it needs but passing mention just here. Its cleansing, healing powers are marvelous. A strict diet of buttermilk will cure indigestion in a short time. But buttermilk is a food, not merely a drink, and this should not be forgotten if taken with other food.

Strict starvation, however, is a simple but highly effective method of purifying the body and beautifying it as well. Actual disease is eradicated by this method also, for the rest from food gives the entire bodily functions a rest and nature begins, as she does in all periods of repose, to create—in this case re-create!—the atoms that have been destroyed.

The next means for cleanliness is the bath, and I shall divide this into three distinct classes: the internal bath, the external bath and the air-bath. The first is the drinking-water bath; the second, the tub-bath, and the third, the breathing-bath. Between meals—all theories to the contrary, never *with* meals!—drink plenty of fresh, cool water, but neither "ice" nor iced water. Some famous beauties never drink anything but very hot water, and the effect upon the complexion is magical. It has decided stimulating and cleansing properties. The internal bath "flushes" the system and carries away poisons through the kidneys and bladder and the pores of the skin.

It stands without much need of emphasis that the external bath is an absolute necessity. I would strongly advise against the "cold plunge." Few of the girls of to-day are strong enough to withstand the shock of this and react from it beneficially. The warm bath, just short of being hot, using a good, simple soap, is most truly cleansing and should be indulged in without fail night or morning. Never use scented soap under any conditions! Castile is the best if it is the best of its kind. A good "imitation" of the cold plunge is to let all but a very little of the bath-water run out of the tub while you are still in it. Then, put in the

"stopper" and turn on the cold-water faucet. With a large sponge dip up the water from the tub, just under the running faucet, where it is beginning to mix with the warm water already there, and squeeze the contents down between your shoulders so that the spine gets the chill of it, and place the sponge close up under your hair at the base of the skull as you do so. Do the same for your chest. Repeat this process until the bath-water is entirely cold, then hop out quickly and begin drying quickly with a large heavy towel. Dry between shoulders and over abdomen first.

The face itself bears the brunt of exposure to all beauty-destroying elements: wind, dust and sun. For the first two reasons I would suggest that the face be washed carefully at night and then not again until the following night, just before retiring. I would wash it in hot water and dry by patting, not by rubbing, with a soft, absorbent towel. Then, if you cannot afford the more expensive creams, use just pure olive-oil, a very little of it on the tips of your fingers, and begin massaging your face with a rotary motion, always upward toward the hair. Remember, muscles tend to sag, or drop, particularly if we are not in the first flush of our youth, and the upward movement in massage counteracts this to a large extent. This same method applies to the throat.

And, finally, the breathing bath. Deep breathing literally makes you over. It removes fatigue, depression and actual illness. Seven long breaths taken at an open window, or in the street, will make a "new woman" out of you in the best sense of that term. The rejuvenating breath is the following, curing headaches as though by magic and clearing up a fagged brain:

Place one finger over the left nostril, closing it. Inhale deeply through the right. Hold breath while you move obstructing finger from the left nostril to the right. Exhale breath then slowly through the left. Do this seven times. The right nostril is bringing in the cleansing breath, the left one is carrying away the "refuse" swept down by it from different parts of the blood!

Uncle Sam's Man

[CONTINUED FROM PAGE 18]

From an upper shelf of the closet he weakly dragged down an old-fashioned telescope and began blindly to throw an assortment of clothing into it. Confusing mist was before his eyes and his lips at intervals formed the words "Uncle Sam's Man," but no sound of them was audible.

In the little front room stood the inspector. Abner could see him by peering out of his own door. The inspector was shaving and Abner caught a glimpse of a big, reminiscent smile framed in the mirror which hung before the man. But Abner withdrew his head abruptly and bent over his packing again.

Presently he looked up. The inspector was standing in the doorway of the room waiting—waiting to take him away to an official investigation. The words rang in his ears; but he was ready.

"Good-morning," called the big, cheery voice of the inspector. Abner did not look up.

"He's nice about it, anyway," thought the old man.

"What are you doing?" asked the inspector. Abner choked.

"Getting ready," he said slowly, "to go with you to that official investigation." Still he did not look up. A chuckle, a big, hearty one, oozed from the inspector.

"I have decided," said he, "that if you will resign, we will not carry the case any farther."

If Abner had looked up, just for a glance, he might have seen that the austere voice belied the look upon the inspector's face. But he didn't. He was thinking of the valley, of the long, long drive of "the boys" and of his favorite spots along the road. Weakly he sank to his knees before the medley of things in the telescope.

"I don't want to resign," he sobbed suddenly, for he loved the life and he wanted still to be Uncle Sam's man.

With one big step the inspector crossed the room and sank down upon his knees beside the old man. Abner felt a strong arm suddenly about his bent shoulders. Impulse had again seized the inspector.

"Listen," the inspector whispered in the old man's ear in a familiar voice. "There's no Volume XX. of postal laws and there's

no Section 1157—it was all a joke. Stop packing and look up here a second."

He lifted the old man's head and pushed the photograph, faded and stained, before the old man's eyes.

"Now look here at me," he said.

Abner saw the man's hair, his eyes, his nose, and they looked strangely familiar. But the mustache was gone. Abner saw that in the next glance.

"Boy!" he cried. "Hal! But you've been rather tough on me!"

"I know it, dad," replied the young man, "but I wanted you to quit this work. You don't need to do it for me. I didn't know, though, that you liked it so well."

"I do, Hal, I do," cried the old man.

"I know it now," replied the boyish man, "and you can keep it. Mother and I talked it over last night—she says she recognized me at supper—and she said you loved the work. But I want you to say that you forgive me for the way I hurt you. I just acted on impulse."

"I do," answered Abner quickly, "and—and I want to be one of Uncle Sam's men still."

And the arm about his shoulders tightened suddenly.

"He couldn't have a better one than you," exclaimed the young man.

How Corks are Manufactured

CORKS are made from the outer bark of an oak-tree that grows in Portugal, Spain, Morocco, Algeria and Italy. This tree is an evergreen. It varies in diameter from six inches to three feet. The cork-oak may be stripped of its outer bark at stated periods, usually ten years apart, without losing its life. The tree grows from twenty to forty feet high.

The first cutting is made when the tree is about twenty years old. The first cut, or virgin bark, as it is sometimes called, is of little commercial value, owing to its coarseness and deep seams. The tree generally lives and yields cork for about one hundred and fifty years after the first cutting is made.

On account of its lightness and compressibility, cork is useful for many purposes, but it was first used for the manu-

facture of corks for bottles, and these little stoppers still consume most of the output of the trees.

Corks are still made by hand in Spain and a few other countries of Europe. Each one is cut from a square block of cork. In the United States, where the finest corks in the world are made, the work is entirely done by machinery, invented and manufactured by Americans.

Cork, as everyone knows, is difficult to cut smoothly with a knife. The knife must be very sharp and used with a drawing motion. However, if the cork is wet, it can be more easily done. In manufacturing corks by machinery the same difficulties are met, and overcome by the same means.

The bark is soaked in water and put into damp cellars to soften. It is then taken to the stripping, or slicing machine, which cuts it into little slabs, or strips, of a thickness equal to the length of the corks which it is intended to make.

These machines are nothing more than small iron tables, through which appear steel disks, like little circular saws, except that they have no teeth. These disks are as thin as paper, and run at great speed, but so smoothly that they appear to be standing still to the casual observer.

The little slabs of cork now go to the "blockers," hollow, cylindrical steel punches, with very sharp, razor-like edges. The punches are arranged in rows. They are not simply pressed through the cork, but are revolved at a high rate of speed, thus cutting their way through.

When the punches have cut through the slab they are automatically lifted, while pistons, working inside the punches, move forward and knock out the corks. The corks are now without taper, and in that form they are used for stoppers in bottles of gaseous liquids.

Druggists prefer a tapered stopper made on the tapering machines, which are operated by young women.

By hand, a very skilful cutter can make from seventeen hundred to two thousand in a day, while with one of these machines one girl can, in the same length of time, turn out over sixty thousand.

G. W. KELLS.

VELLASTIC
Ribbed Fleece-lined Underwear

VELLASTIC is made of a soft, elastic-ribbed fabric with a silky inner-fleece. The fleece won't wash away or mat.

It is warmer than many of the heavy bulky underwears. And no underwear is more finely finished or more perfectly proportioned in sizes.

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At your dealers. Made in separate and union garments at 50c and up. VELLASTIC is one of the Bodygard Underwears. Look for the Bodygard Shield. It is your safeguard.

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Hygeia Nursing Bottle Company
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THE BEST YOU EVER SAW

25 of the Best Thanksgiving Post Cards sold for 10c. All different, consisting of Turkeys, Children, Pumpkins, etc., with inscriptions. Some are embossed and in gold, all are lithographed in many colors on a good quality of cardboard. Sent prepaid with our large catalogue and special offer, all for 10c.

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Trust You Ten Days. Send No Money. \$2 Hair Switch Sent on Approval.

Choice of Natural wavy or straight hair. Send a lock of your hair, and I will mail a 22 inch short stem fine human hair switch to match. If you find it a big bargain remit \$2 in ten days, or sell three and Earn Your Own Switch. Extra shades a little more. Includes 5c postage. Free beauty book showing latest style of hair dressing—also high grade switches, pompadours, wigs, puffs, etc.

Anna Ayers, Dept. B 90, 22 Quincy St., Chicago

It is to your advantage to mention Farm and Fireside in writing to advertisers. Farm and Fireside folks get the very best attention.

\$1.00
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This plume is just the kind for which you would have to pay \$5.00 at any retail store. It is extra wide, fully 16 inches long, in all colors, with willowy flues of great length that do not lose their curl easily. Send us \$1.00 to-day, for this is an opportunity not to be missed. We offer also an extra large and handsome \$7.50 plume at \$2.50.

Send money by mail, express or money order. Remember that your money will be refunded if the plume is not entirely satisfactory.

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EDITORIAL FORECAST OF BI-WEEKLY FARM AND FIRESIDE

Many Big Features for Next Year

FARM AND FIRESIDE plans to make more decided progress during the next twelve months than during any previous like period. To begin with, this paper is to be published Bi-Weekly, beginning with the first issue in November, which will be issued November 11th. Thereafter subscribers will receive a copy every other Saturday without fail. This means more big articles and we assure you that the columns of FARM AND FIRESIDE will be more in-

structive, entertaining and interesting than ever before. We will earnestly and diligently strive to maintain the reputation that FARM AND FIRESIDE has acquired as being the most practical, cleanest and most wholesome farm journal printed. It will be published on an especially good quality of paper and will have many fine illustrations. We propose to give you in 1912 the most sensibly edited and the best illustrated farm paper on the market.

The Market Outlook

THIS feature has recently been added to FARM AND FIRESIDE and is the best market feature of which we have any knowledge. The average market report in farm papers is of little value. They only tell what the price was a few days ago. But every farmer should study the conditions all over the country as to the supply and demand of live stock and the feed situation. You can then determine just when the best price of various farm products can be expected. Our market report will be a study of market conditions by the men best qualified to make it. This study will not be by stock-yard men or by theorists, but by actual farmers. Men who have had a long period of successful experience in marketing farm produce to the very best advantage.

Live-Stock Farming

FARMING with live stock is recognized as the best way to maintain the fertility of the soil and, consequently, permanent agriculture. Our live-stock writers are many. We can name only a few here. FARM AND FIRESIDE will have regular contributions from W. S. A. Smith of Iowa, who is one of the great cattle-feeders of the world. Mr. John Pickering Ross of Illinois, who is known to all the sheep-breeding world, will have much to say of interest to American farmers. The raising of hogs in all its phases will be discussed by Mr. Lloyd K. Brown of South Dakota. Likewise Professor Dan T. Gray of Alabama, who will startle some of our readers with his accounts of cheap pork-growing in the South, will continue to contribute to our columns. We might mention many other live-stock men who will help in making FARM AND FIRESIDE the greatest agricultural paper in the United States.

The Farmers' Lobby

NO FEATURE of the paper has been more interesting in the past than Judson C. Welliver's Farmers' Lobby. Welliver is a farmer who lives on his own farm of about four hundred acres in Montgomery County, Maryland. He is in Washington almost every day and has a national reputation as a writer on popular questions. We believe that no paper can boast of a page in which there is more earnestness, more desire to get at the actual truth and more devotion to the cause of the farmer than is to be found in Mr. Welliver's page in FARM AND FIRESIDE. We are now approaching the presidential year. The Farmers' Lobby alone will be worth one hundred times the entire subscription price of FARM AND FIRESIDE in this crucial year of our history. You cannot afford to miss it.

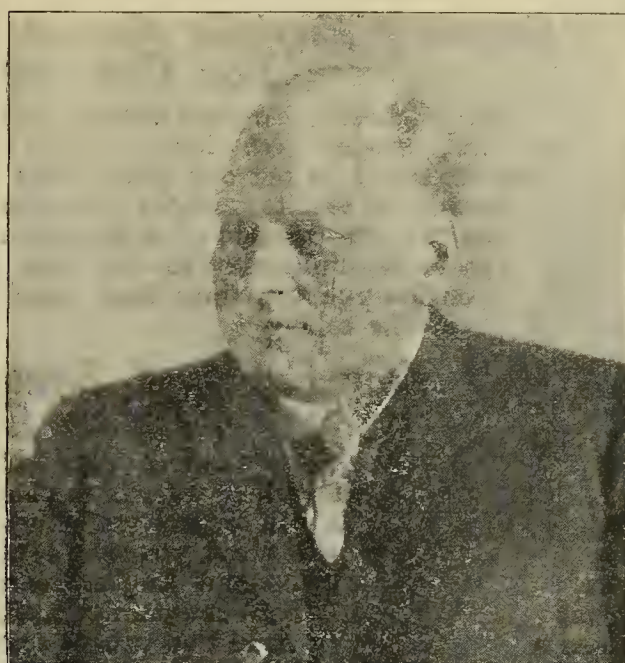
Coöperative Features

FOR more than a year the editorial force has been at work preparing for a list of articles stronger than any farm paper has ever had. Do you know about the terrific fight made by the grain trust against the cooperative farmers' elevators? We have closed an agreement with the strongest forces in the cooperative movement to furnish us with the real truth about the matter. These articles will clearly define the real principles that should control all cooperative marketing. They will show you just how to do it. Cooperation is to be the slogan of our next year's work and our articles will have all the fire and vim of revelation to the farmers of this country.

A Remarkable Interest in the Headwork Shop

A PHYSICIAN in Washington has just written us a letter in which he says that the Headwork Shop of FARM AND FIRESIDE is the most wonderful repository of inventive genius that he knows. This has been one of the most important and popular departments of FARM AND FIRESIDE, and the columns of this department have described all kinds of contrivances that are helpful to the farmer. In most cases a picture of the contrivance is shown with full instructions how to make it.

And what is your best farm tool? This question will be answered in a series of articles of the most interesting character. There are many new tools and good tools of which a great many farmers have not heard. There are also a lot of old tools that are used which are unknown to many good farmers. The 1912 FARM AND FIRESIDE will tell you all about these things.



Herbert Quick, Editor Farm and Fireside

With Our Editor

THE confidential talks between Mr. Quick and the readers, appearing on the second page of FARM AND FIRESIDE, will continue in the future as in the past.

Mr. Quick will continue to travel about a great deal looking for the latest ideas and the best things in agricultural life. The editorial page of FARM AND FIRESIDE will contain a close analysis of events of national and state importance as viewed from the farmer's standpoint. This page will contain timely and vitally important discussions. No effort will be spared to make every line in it valuable, truthful and inspiring.

Our Advertisers

WE THINK that an inspection of our advertising columns will show to anyone familiar with the business a higher standard of excellence in our advertisers than in any other national paper, either agricultural or general. We are proud of our advertisers and in 1912, as in 1911, we shall continue to accept only those advertisements of which we can be proud and back of which we can stand with the well-known financial responsibility of our company. We guarantee the honesty and responsibility of our advertisers and we take care of the interests of all readers dealing with our advertisers.

Special Departments

THE departments in FARM AND FIRESIDE are arranged to meet the needs of farmers everywhere. All readers will be interested in the articles on **Poultry**, which will be written both from the general farmer's standpoint and from a strictly poultry farmer's standpoint. **The Garden and Orchard** features of the paper will be enlarged. **Crops and Soils** has been running only a short time, but specialists who are studying soil conditions, and prominent farmers who are raising maximum crops will make this department interesting. Then, too, there will be the **Farm Notes**. This will deal with some of the extraordinary subjects we have in mind, on road construction, farm buildings and farm operations.

Other Good Features

IF WE were to tell you all the original articles which we have already scheduled or have under way for 1912, it would cover this page and we should not have time to speak about the regular features of FARM AND FIRESIDE of which we are prouder than ever. We expect next year to make friends and enemies by telling the truth of new locations regarding the real-estate boomers and land sharks. This of course will be run in our **Homesekers' Excursions**. Special articles on Farm Management by Prof. D. H. Otis of Wisconsin will contrast the farms that do not pay with farms that do pay. Dr. C. G. Hopkins of Illinois, the greatest authority of the United States to-day on soil, will give us articles from time to time on important topics. We will give our readers, who are shippers of any kind of farm produce, the names of commission firms who are known to be reliable, financially responsible and honest.

A New Serial Story

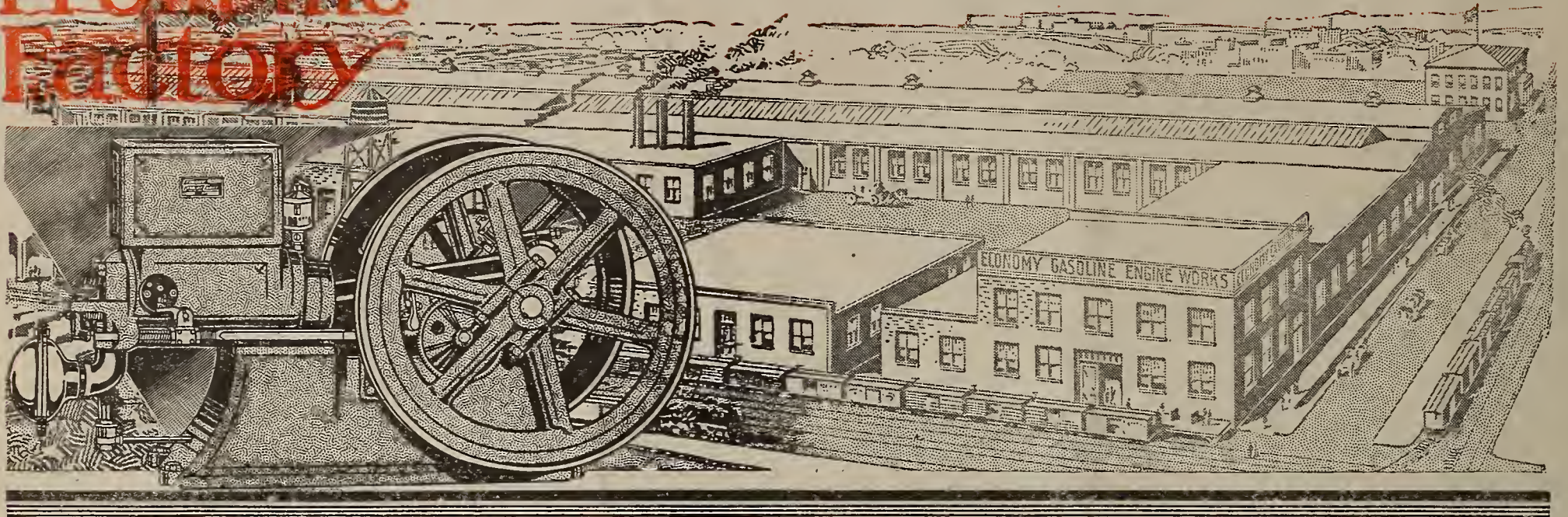
NO STORY ever published by us made such a hit with our readers as "Poor Relations," by Miss Adelaide Stedman. It touched truthfully and powerfully the chord of real life. Well, Miss Stedman is finishing us another, in her best style—we think it will be better than "Poor Relations." We are well pleased about this. Miss Stedman's novels are written exclusively for FARM AND FIRESIDE.

The Fireside Department

THE fireside pages of FARM AND FIRESIDE will be the equal of a whole popular magazine. This department will contain splendid short stories, miscellany, poems, household articles, a fashion department, Sunday reading and other features that appeal to every member of the family. We shall have better stories, better articles, more practical hints and recipes in this department and more of them. The **fashion designs** will continue to be made by Miss Gould, one of the greatest fashion writers of the world, and will be sensible and at the same time up-to-date. The **Sunday Reading** in FARM AND FIRESIDE will contain strength and good cheer for every reader of FARM AND FIRESIDE. Margaret E. Sangster will continue to talk to the readers of FARM AND FIRESIDE through the Home Interests' Club. She is a great woman who is doing a great work of which we are justly proud. With all these instructive and entertaining features don't you feel that the Bi-Weekly FARM AND FIRESIDE will stand out more prominent than ever before as the leader of farm and home papers?

ECONOMY GASOLINE ENGINES

From the Factory



Cheapest to Travel the Shortest Road

This advertisement pictures a great fact better than words can tell it. The way we sell Economy Gasoline Engines is the shortest road from the factory to the farm. It is the best selling method for us and the cheapest buying method for you. It's the right way to save money. Get that important fact fixed in your mind, but do not overlook this bigger and still more important point.

Ready to Ship

1½-Horse Power

\$29⁹⁵

2-Horse Power

\$42⁹⁵

4-Horse Power

\$74⁷⁵

6-Horse Power

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8-Horse Power

\$168⁹⁵

10-Horse Power

\$243⁴⁵

We are not merely advertising the Economy Engines, we are **selling** them. Before we began this advertising campaign, we started a manufacturing campaign. We have engines **ready to ship the very day your order reaches the factory**—all sizes—all styles, including the style and size **you** want, waiting ready to be loaded into the freight car the moment you say the word. If you know what your engine needs are, if you have made up your mind what horse power you require, **don't lose a moment** writing for catalogs or information. The prices are plainly printed in this ad, and all you need to do is make out your order, enclose the price, and the moment we get it **your engine will be running to work** as fast as it can go. You will never get a better chance to get the **right engine** at the **right price** and at the **right time** than **NOW**.

Economy Engines Are as Good as Any Gasoline Engine You Can Buy for Any Price.

The highest price ever asked will not buy you any better engine, for better engines are not made. We have bought and tested all other makes right alongside the Economy in our own plant, have given them all the same full fair test and have viewed the results without prejudice. The Economy will do anything that you can properly demand of a gasoline engine. No engine can do your work better or more faithfully day in and day out, and the Economy is the only high class engine you can buy that involves no wasted expense or unnecessary profits in the selling.

Our Fair and Square Selling Method Enables You to Try the Economy Without Risk.

You send us your order and we send you the engine. You try it on your own farm in your own way, doing your own work for sixty days. If you are not perfectly satisfied that the Economy Engine is the engine you want, you send it back to us at our expense. If you do not like the Economy Engine the trial does not cost you a penny, because we return both the purchase price and the freight charges. That's the kind of trial that proves something.

Whether you are ready to order just now or not we want you to have a copy of our latest Gasoline Engine Catalog, so write your name on the coupon in the lower left hand corner of this ad and send it to us by return mail. You'll get a book worth having, containing the engine information you want, quoting prices that will interest you, showing you how to get the greatest possible engine value for your money. Get this book right away.

Sears, Roebuck and Co., Chicago, Illinois

SEARS, ROEBUCK AND CO., Chicago, Ill.

Please send me a copy of your new Economy Gasoline Engine Catalog.

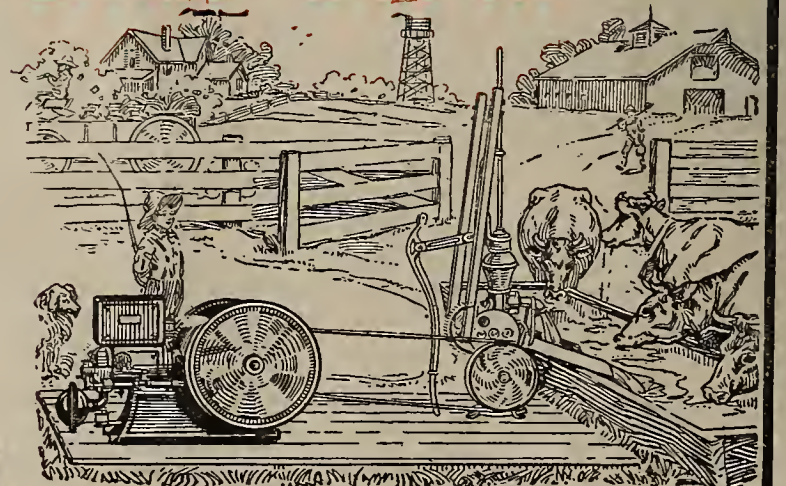
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FARM AND FIRESIDE

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NOVEMBER 11
1911



Pumpkins were made for pies, for jack-o'-lanterns, and, of course, for boys



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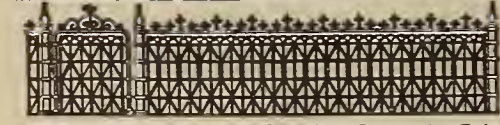
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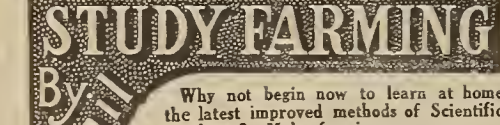
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American Farmers School, 91 Laird Bldg., Minneapolis, Minn.

With the Editor

BROWN BROTHERS, of Laverta Meadows Farm, Minnehaha County, South Dakota, is rather a misnomer, since there is a sister in the firm. But we haven't any word that is of the common gender, and means a collateral relative one degree removed. Odd that we haven't, but the English language is defective in that, as in other matters. Curiously enough, too, it's the women who get the worst of it in these linguistic shortcomings. We say, "Let every pupil raise—" and if it's a girls' school, we say "her hand;" if a boys' school, we say "his hand;" and if it's a just-plain-ordinary school like the ones we went to, we have to choose between "his" and "her," not having any pronoun that meets the needs of the occasion. So we are told by the grammarians that we must give the girls the worst of it, and say "his hand" when we mean both girls and boys.

The grammarians, however, can't make us always violate our sense of justice, so we are pretty apt to let them go hang, and say right out as bold as brass, "Let every pupil raise their hand." We know it isn't correct—it's just merely right—right as between man and man—there! we're at it again, giving the men all the best of it, but the result in California seems to promise a new era.

I once knew a man who headed a great movement for the use of "va" as the second personal pronoun of the common gender. He would say, or write, "Let every pupil raise vas hand." And there are folks who have tried to get "thon" adopted in the same way. But it doesn't seem to work. Woman's rights in the rules of grammar are hard to get, even though there be people who say that she has a good working majority over men when it comes to the use of language. Anyhow, the firm of Brown Brothers consists of three brothers—Paul, Lloyd, Clive—and Bessie.

I saw there, in August, the best herd of fifteen cows I ever saw on a farm. They are practically full-blood Holsteins, and will average 1,300 pounds in weight. The head of the herd—old Queen—is a huge animal, so big that her back is right on a line with my eyes—and said eyes are in a head the top of which is six feet one from the ground. Queen could easily be made to weigh 2,500 pounds, I believe. She has a record of 14,538 pounds of milk a year. The poorest record made in this herd last year was 9,058 pounds—by a young cow not yet at her best.

THESE cows were bought in a bunch from D. J. de Hough of Boyden, Iowa, who bred them all. They are all closely related in blood, and range in age from heifers up to mature cows of ten years old or over. Brown Brothers paid ninety dollars per head for them—and had to rebuild their stable. They had had cows of ordinary size, and when they brought these huge dairy queens home and tried to put them in the stanchions, they found it impossible. The cows were too long. They knocked out the stanchions, and the cows were able to stand somewhat at ease, with their heads reaching clean through the mangers and into the feeding-alley. Anyone who changes from small cows to Holsteins will have the same trouble, though perhaps not in the same degree; for few breeders have grown cows as large as those bred by Mr. de Hough.

These Dutch queens were all tuberculin tested when bought, and they are individually tested when milked—every day. This is as to pounds of milk—for butter-fat the tests are not made so often. They claim that it is really a convenience to weigh the milk, as each mess is taken to the scales as drawn, and the weight written down on a card hanging on the wall. Thus they have a record of which cows are milked and which not, and don't have to inquire whether Queen has been milked, or if Colantha isn't being forgotten—they just look at the card, which shows not only which have been milked, but how much they have given.

Do these cows pay? Well, I think they do. They have been on the farm about eighteen months. Last year they sold cream to the amount of \$1,700 from the fifteen cows. And the cows being practically full bloods—most of them only kept from registry by the loss of the description of a sire—the calves are valuable. For people who don't care for registry, they are just as desirable as the absolutely pure-bred. They sell all their young bulls, when old enough for service, for \$50 each, and the heifers when three days old for \$30. People send them the money away ahead of time for the heifers, so that the \$30 will be on the ground as soon as the little bossy. Last year the calves brought \$500, and they calculate that the skim-milk was worth to the hogs \$400 more—which is valuing it at twenty-five cents a hundred. Their gross income from the fifteen cows, therefore, for the year was \$2,600.

The feed for the cows is silage in winter, with millet-hay and corn-fodder for roughage, and ajax flakes as a balancing concentrate, with sometimes a little cottonseed meal in addition; and in summer, bluegrass pasture (yes, they grow good bluegrass in South Dakota, thank you!), hay whenever they will eat it, soiling crops when the drought catches the pasture (Oh, yes, hang it, they have droughts in South Dakota!), silage, and two light feeds of concentrates a day.

THE Browns are back-to-the-landers. It took them nine years to get away from the city. First, Paul went to the Iowa State College at Ames, specializing in animal husbandry, and became an expert in showing cattle at fairs, earned good money while in college by preparing cattle for the show ring and caring for them while on tour. Clive followed him to the college. Bessie went to the Dakota college at Brookings, after graduating at Morningside College. They are all people equipped with the most thorough scientific educations. Their father was for many years a successful physician and, with their mother, lives on the farm, as active a farmer as any of the "brothers."

After Paul got through Ames, they took a farm near Vermilion, and after three or four years of mistakes, successes and hard work on this leased farm they bought one of their own. Since then they have added to it. They have learned by years of hard knocks how to use their scientific knowledge. Paul has been an officer of the South Dakota Sheep-Breeders' Association, and is a fine shepherd. When he writes for FARM AND FIRESIDE about sheep, he writes from experience and has a record for success. Lloyd is the head of the hog department—and, by the way, after breeding Poland-Chinas for years, he is about to change to a bacon type—the Yorkshires. The field-and-crop man of the firm is Clive—and the most valuable brother to the mind of lots of people is Bessie.

I have thus dealt rather familiarly with this farm and its people, because that is the way I feel, and I want the readers of this paper to know the sort of background there is to our hog-market letter, and the things which have borne the signatures of these highly educated working farmers in these columns. It is from such sources that the columns of FARM AND FIRESIDE are being enriched.

Robert L. Quick

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FARM AND FIRESIDE

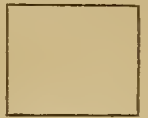


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The Granges' Dilemma

PROBABLY not one in ten of the rank and file of the Patrons of Husbandry realize the danger which confronts this oldest and most powerful of farmers' organizations. That danger is nothing less than a secession and complete division. While the whole country has been dividing on the lines of Insurgency and Standpatism, the Grange has been dividing, too. Owing to the resistance to change which the National Grange presents by reasons of its slow-changing membership, akin to that of the United States Senate, there is a feeling on the part of the "Progressives" that the national body is an oligarchy ruling by force of a machine, and not representatively. It is unfortunate if there is any reason for such a feeling.

Mr. George P. Hampton of a New York Grange has been under the ban of the National Grange for a long time. Two years ago the national body condemned and censured Hampton for certain publications accusing the national officers of various delinquencies. The controversy culminated in a trial of Hampton, recently, before his own Grange, and his acquittal by a vote of nineteen to six.

Of course, this does not mean that the charges Hampton made are necessarily true. It means that twenty-five Grangers voted nineteen to six that they are true. This alone would mean little except to the parties to the controversy. The National Grange cannot be condemned on a vote of a single Grange on the conduct of one of its members.

But the serious aspect of the case appears in the fact that this same George P. Hampton, while firing on the National Grange and being fired at in return, has been made secretary of the Conference of Progressive State Granges, and placed in charge of its offices in the Bliss Building, Washington, D. C.

This Conference is the Insurgent organization and unites in action independent of the National Grange, the State Granges of such great and powerful Grange states as Maine, Michigan, Pennsylvania, Oregon and Washington, not to mention such states as Kentucky and Colorado. Of this great insurgent organization, Mr. Hampton is the active officer, if not the real leader.

So the Hampton trial discloses itself as the skirmish on the outposts of two great opposing forces in the Grange. The "Progressive" State Granges believe in Hampton as against Batchelder.

Who is right is not for us to say. But this is certain: The almost patriarchal organization of the National Grange gives to it an almost autocratic power, a power which can hold the majority of the members at large quite helpless for years, if it chooses to act according to its own will instead of theirs. Shakespeare says, "It is excellent to have a giant's strength; but it is tyrannous to use it like a giant." We do not believe that this divisive strife represents any real division of sentiment, except among Grange leaders. And we hope that the Grange may right soon possess united leadership devoted to the progress in farm life and conditions.

Coöperation spells recuperation among farmers.

In China, Mexico, or Portugal a revolution is accompanied by bloodshed. It is different in the unrivaled climate of California.

To vote for the winning congressman, and have no influence on his vote, or to vote for the loser and then sway the winner—which do you prefer? The man who lets his representative know how he feels is the voter whose work counts. "The flavor lasts."

We Let Them Do This

THE American sugar-refineries, united in a trust and its dependencies, have advanced the price of sugar. Seemingly reliable estimates tend to prove that we, the sugar-eaters of the United States, will have to pay these gentlemen \$40,000,000 more for sugar next year than we paid last. And we paid last year probably \$100,000,000 more than we should have paid had we lived in Great



The Line of Beauty

Here is a stretch of road which is a delight to the eye. Why? Partly because of the woody character of the scene, which is redeemed from the wildness by the traveled way and the fence. Partly by reason of the long, shady, open glade, with the glimmer of sunshine at the far end. But the last touch of charm is added by the fact that the road curves to the left, to right and in and out. The curve is the line of beauty. This should never be forgotten in the planting of shrubbery, and the laying out of grounds. The straight line is best for the field and the orchard, but for the sake of beauty about the home break up the ruled line of the American land-survey by the redeeming curve. Study this photograph for suggestions.

Britain, where sugar is duty free. The trust will remunerate itself for the fines we, the sugar-eaters, through our government, have inflicted upon it for its many and manifest crimes. Having placed our sugar-supply in the hands of the Sugar Trust, we ought not to complain if the hands shut up on us. And the trust ought not to complain if, when Congress meets, we, the sugar-eaters, take the sugar-supply out of its hands by taking off the duty. The sugar people say that the price is a simple matter of demand and supply. This is probably true—the demand and supply of congressmen.

Scientific Lingo and College Yells

IN Mr. SNURE's article in this issue he speaks of dihydroxystearic acid as a probable cause of the poorness of soils. This jaw-breaker seems like a hard word to throw at a peaceable reader, but there isn't any way to avoid it. To a chemist every syllable of "dihydroxystearic" is full of meaning. And farmers must think as chemists when they study soils.

It will pay us to memorize such words. Once memorized, "dihydroxystearic" is not harder than "John limped down to the stable"—but it must be admitted that it looks fiercer to the common eye. Dr. Cyril G. Hopkins' students at Urbana have devised a scheme for memorizing the list of ten essential elements of plant-

food: carbon (C), hydrogen (H), oxygen (O), phosphorus (P), potassium (K), nitrogen (N), sulphur (S), lime or calcium (Ca), iron (Fe) and magnesium (Mg). Their memory scheme is based on the doctor's name, and is "C. HOPKNS CaFe, Mg." The "C. HOPKNS" is easy, and, of course, "CaFe" is a place where one gets things to eat, and "Mg" means "mighty good"—which may represent either the soil, the café, or the Doctor. Anyhow, "C. Hopkins' Café mighty good" sticks in a memory-pin to hold the ten necessary elements of plant-food—any schoolboy can remember it, if he keeps in mind the fact that "K" stands for potassium, "Ca" for lime and "Fe" for iron.

"Dihydroxystearic" could be memorized by a gathering of students in a moment, shouting it in sections as a college yell. "Di! Hy! Droxy! Stearic! Rah! Rah! Rah!"

Just as it stands, with the "Rah! Rah! Rah!" it wouldn't do, except as the class yell of the Abandoned Farmer. Perhaps we'd better give it to the beginners in Soil Chemistry, substituting "Lime! More! Lime!" for the cheer. Try it on your boys.

Sweet Clover Booming

THERE seems to be a boom on in sweet clover. We were among the earliest of farm papers to call attention to the value of this long-despised cousin of alfalfa, and are glad to have our judgment verified. But booms are unsafe things, and a word of caution may well be dropped.

Sweet clover is a money-maker to the farmer who can grow it successfully. But because it is a wayside weed it must not be assumed that it will grow successfully of its own accord. There is a trick to sweet-clover growing which must be learned, or failure will be met with. It has about the same feeding value as alfalfa. It will grow in localities where alfalfa fails. It prepares the way for alfalfa on the same ground. It makes good hay and furnishes good pasture. It renovates the soil. But it is not as good

a plant as alfalfa for the purpose for which alfalfa is grown—that is, we don't think it is. One of these days we shall present to our readers a study of one successful sweet-clover grower's experience in making a weed into his chief pasture and hay crop.

A cross husband is about the meanest cross a woman has to bear.

Knowledge is power, and so is a gasoline-engine. Both must be used to get the most good out of them.

More Methods Than One in Trapping

By David E. Allyn



WE WISH to say something more about the use of scents and about making scents. In our experience we have found it always best to make our own scents and decoys for several very important reasons. First, no man living (and dead ones can't) can obtain enough of nature's material to manufacture scent enough to supply the demand, if he sells it, to make it strong enough to be of any value to the purchaser. This may seem a broad assertion, and we leave it to your own good common sense and honest judgment if we are not right in our statement—"stink peddlers" to the contrary, notwithstanding.

There are Some Frauds

Take the fox-trapper, for example. There is nothing so attractive to foxes as a scent made from certain animal oils, honey and the scent of the female fox in rutting season. But how many female foxes would one trapper get during the very short period when this scent has its greatest attractive power—about five days? Surely no more than he could use for his own traps, if he succeeded in getting any at all, as female foxes and all other animals are exceedingly shy and hard to capture at this time, and therefore we say that the man who sells thousands or even hundreds of ounces of scents each season and claims that it contains enough of this peculiar scent of the female to make it attractive—"just makes 'em go crazy"—is wilfully misrepresenting things to the trapper, and we can prove it by his own worthless stink. Such people should be prosecuted as common swindlers and frauds. Just let us analyze it a little. Suppose you get one female fox during the rutting season, and you successfully extract the peculiar fluid or "scent" so essential to making your decoy attractive, how much do you suppose you would have? Our experience teaches us that about one eighth of an ounce can be obtained. Now, suppose we manufacture scent for sale. We expect a big trade—because the fools are not all dead yet, and they all want to buy—and we make a thousand bottles, holding two ounces each, of scent, and use this one-eighth ounce of female fox-scent as the "principal ingredient," or the one thing of the whole mess that contains the great power of attraction. Now figure a little, and make a



"What an awful price for adulterated alcohol!"

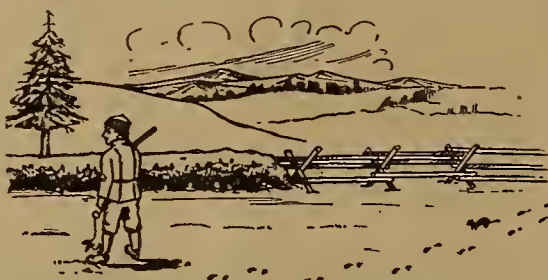
small mathematical calculation, and note carefully the result. One-eighth ounce of the "flavor" to TWO THOUSAND OUNCES of other stuff, usually watered alcohol; how much of the "flavor" would that be to the ounce? It looks as if any school-boy could figure it out, but it is not so easy as it looks. The amount would be so infinitesimally small that you would have to use a powerful magnifying glass to see to puncture it with the point of a needle. There are about forty drops to the eighth of an ounce. Put these forty drops into two thousand ounces of other stuff, and then divide these ounces into forty or fifty sets each, and you would have about one-sixty-four-hundredth part of a drop of "attractiveness" to the set. Do you really think there would be enough of the true scent of the female fox in that set to "attract foxes a mile—jes' make 'em go crazy"? Don't be fooled, boys, by advertising "stink-sellers"; make your own scent and decoys.

Another thing about making scent is the use of alcohol, usually diluted with an equal amount of water. We recently noticed someone advertising the fact that he put the scent-glands of "fourteen mink in one gallon of diluted alcohol," and offered to sell it to the trappers

at one dollar per ounce. Gee whiz! What an awful price for adulterated alcohol! But some bought it.

In addition to what we have already said about the peculiar scent of the female animal, we will just say that not one young trapper in five thousand—and many old ones as well—understands just what that peculiar scent is that is so attractive, or how to obtain it. The "stink-bag," or "lumps of perfume," so many trappers talk about are not the true scent-glands. These "bags" and "lumps" can be collected in large quantities, but not so with the true scent-glands so desirable. The scent in these "bags" and "lumps" is just the same offensive stink at all seasons of the year and is NOT the parts or stuff that should be used at all. The scent so essential to attractiveness is found only in the glands or ducts in the interior of the sexual organ of the female during the very short period of the rutting season, and is a kind of spitte or saliva that is essential to generative creation, and when a man says that he uses this as the principal ingredient in his decoy, and offers to supply it to the world at twenty-five cents or fifty cents or one dollar an ounce, he is the rankest kind of a swindling fraud, and the trapper who buys it usually "gets it where the rooster got the ax." Don't be deceived, boys; make your own scent.

We will now discuss the theory that fur-bearing animals are afraid of human scent, especially when left on the trap and its surroundings. This has been a subject of much discussion among trappers, hunters and naturalists, and many theories and opinions have been



"Did you ever notice a mink trailing along the route?"

advanced on both sides of the question. We have had much correspondence with many noted trappers on the subject, and none of them have been able to substantiate the claim that they are afraid of human scent as it comes in contact with the trap or trail, and we have long since discarded the belief that they are afraid of human scent, and believe it to be an idea advanced by certain unscrupulous parties years ago (and some to-day) who are selling "Scent-Killer" in the East, in order to create a larger demand for their worthless compound.

Careless Work Never Pays

Many trappers whose experience is limited to a few traps and small territory, with a knowledge of trapping just as limited, often set their traps so carelessly, or where the animal would never go in its search for food, and just because they do not catch the animal in a day or two, or even a week, they imagine it is afraid of the scent left on the traps in handling them while making the set, when the fact is the animal comes along and sees the carelessly set trap, and as it is an obstruction in his pathway, he politely jumps over it and passes on. Had the trap been carefully set and properly baited and decoyed, and in a place where the animal was in the habit of frequenting, or hunting for food, he would not have noticed the obstruction and disturbed condition of the place and avoided it; he would have walked right into it; he would have found a trap "set just where he was going to put his foot," as a noted trapper once happily expressed it.

Did you ever notice a mink, and the fox, too, trailing along the route you or some other person had followed, smelling along, and pausing a moment at each individual track, and sniffing the scent left by the imprint of your foot, perhaps wondering to himself what an elegant

brand of perfume you shed every time you made a track? Do you think they would trail your tracks if they were afraid of human scent? A fox, in running across the country, comes in contact with the trail of man in many places: do you think he would cross the trail, or follow it as he often does, if he were afraid of human scent? Did you ever see an Indian trapping? He never heard of such a theory. His blanket is belted around him; his traps are carried in his blanket above his belt, and very often next to his bare skin. When he finds a place to set his trap, where he knows the animal to be, or where it is in the habit of frequenting, he sets it barehanded, handles his bait barehanded, and, of course, leaves human scent on both trap and bait—and catches the animal. Do you think he would have caught it had it been afraid of human scent?



"Did you ever see an Indian trapping?"

A Matter of Observation

Putting on gloves while handling traps is about as useless, as scent acts too quickly. How long does the foot of a fox or wolf rest on the ground when running at full speed? Surely not very long—a fraction of a second, and yet the scent of that running animal was left at every place its foot touched the ground or log or whatever it stepped upon, and remained there strong enough for dogs to follow it hours afterward. You will say that was a direct touch, with nothing between them as a glove would be between a trap and your hand. Well, then, if you have a dog with a good nose, put on a pair of your old "scent-soaked" boots and walk around a while, and let him follow your trail and get used to your "sweet-scented" tracks, and then, while the dog is out working on this trail, just come into the house, take off your old boots and your old socks, and wash and scrub your feet until they are perfectly clean and free from so strong a scent, and then put on a new pair of socks and new boots, both untainted by human scent, and leave your house by an opposite door, unobserved by your dog, and after you have been gone two hours your dog will lift your trail made with untainted new boots, clean feet and new socks, and follow it correctly. That is how soon human scent acts. Now if it can go through thick boot-soles so quickly, don't you think it would go through thin gloves just as quick and cling to your trap just as it did to your trail on the ground through the thick, heavy soles of your boot, which only rested on the ground less than a moment, while you would hold the trap in your hand several moments, and don't you think the wild animal, whose sense of smell is keener than that of the domestic animal, could discover it just as quick on the trap as the domestic animal did on the ground? Then don't you see that wearing gloves does not keep your scent off the trap? Never thought of that, did you? Only four years ago a red fox was caught beside a hen-coop right in the very center of Des Moines, Iowa, a city of one hundred thousand inhabitants. There must have been some human scent around him. Animals are not afraid of human scent. You can work without a thought about it, and you will still be successful.



"Put on a pair of your old 'scent-soaked' boots!"

"I DON'T see why that is, Father."

We sat on the old rail fence in the shadow of one of the big maples that stood on the line, Laddie and I. The warm sunshine was bathing the whole earth in a flood of light. Down there the corn-rows were beginning to show up fine. How could they help it, kissed by the sweet lips of June, wet by the early summer dews and wooed by the hands of the hopeful farmer boys? For a while Laddie and I just sat there quietly, gathering into our hearts the beauty of the dear old farm scene.

Then something led the boy to indulge in a bit of philosophy. My time for that sort of thing has quite passed away. Facts are the old man's resource. Youth dreams, manhood puzzles over the dissipation of these airy castles, and gray hairs put faith in things as they are.

"Their farms are right near each other, Father. Aren't they about the same kind of soil?"

"Very much the same, Laddie."

"Then why—"

There it was, the eternal cry of the young, WHY? And we sat there and thought it over. On one farm things looked as if the old Nick had struck it. The barn doors were off the hinges. The man who lived there had been stripping the boards off the shed to burn or perhaps to make a hen-coop. Now the building looked as it might after a big cyclone. The windows were only slides of board over a hole in the siding, and now they stared out at us like big eyes gazing fixedly from a face that never changed expression. Out on the farm the same desolate look met our eyes. Down in the lane two or three cows stood fighting flies in the lee of a wire fence—no shelter anywhere, and evidently no effort on the part of the owner to protect his stock



Why? Snap!



By Edgar L. Vincent

from the terrible affliction of the winged pests. It certainly was not a very inspiring scene for anyone.

But just over the fence such a pretty farm scene! House and barns all up in shape, fences trim, garden and fields well cared for, crops that made the heart glad, cattle peacefully grazing up on the side-hill pasture—the contrast was great. No wonder the boy's mind was striving with the mystery.

"Has he been sick or had hard luck of any kind? Seems as if something must have happened to make that man's things look so."

"There he goes now, Laddie! Look at him, and see what you think about it."

Across the field went the owner of the run-down farm. His step was slow and uncertain. His head was down. He seemed to be thinking of something a thousand miles away. If we had been near enough, I knew we would have seen on that face a blank, careless, hopeless expression—the expression of one who has missed it.

"Ain't much snap in him, is there, Father?"

Did I smile? It would not be strange. But just then, too, another man steps out of the house over the fence and goes to the gate across the road.

"Co' Boss! Co' Boss! Co' Boss!" he called cheerily, and the cows look up from their feeding in the far-away pasture. It is not so far away that they do not hear and know that the voice is that of one who loves them and

has something good for them down at the cool barn at milking-time. And away they start for the treat which awaits them. The master knows they will come, and he turns back with the same strong, quick stride to get the pails from the rack. How they glisten in the lowering sunshine! Silver could be no brighter. In every move that man makes there are marks of mastery—master of conditions, master of opportunities, master of self. "Doesn't move 'round like the other man, does he, Father?"

And has not Laddie hit the bull's-eye? His boy's eyes are keen enough to catch the difference between those two men, and his mind is alert enough to "size them up" accordingly. No need for me to stir up the old spring of philosophy in my heart and bring out its perhaps now muddy waters. The lad's active brain outran my lagging effort at speculation.

It was the snap that counted! Snap wins where the lack of it makes failure sure. Snap puts the fire into a man's heart. It helps him to whistle when the clouds hang low. It brings a song out of the hardest kind of times. It makes a man strike back when ill fortune deals its severest blows.

We slip off the top rail of the fence. There is a fine look on the face of Laddie, and the blaze in his eye makes my heart glad.

"I'm going to have snap when I get to farming!" A sweet voice calls up through the softening twilight: "Supper!"

But my thoughts are more on the ring of that word "snap" as Laddie brings it out than they are on mother's supper, fine though I know it is. Strawberries and cream are great. Milk with the cream deep on the top is fine, but it is snap that keeps the world moving.

A Foe of Good Crops

Some Interesting Facts About a Harmful Substance Found in Many Soils
By John Snure



WHY is a piece of land poor? Why are not all crops bountiful? Why is the wheat growing in a field in one locality green and healthy, and in another field close by yellowish and sickly? Why are some gardens and orchards good, and others not? Why is some ground spoken of as good, and other ground as bad? Why does a field, long fertile and productive, become worn out, tired out and fatigued, so to speak?

These are not new questions. Soil-investigators, whether interested merely in a scientific way, or as practical farmers, have been asking them for generations, for centuries even. Various theories have been advanced, only to be exploded or discredited.

The wealth in land of this country has not enforced upon the agricultural part of the population in the past that attention to the nature of the soil which will inevitably be enforced in the future. So long as there have remained great areas of cheap, free lands, enterprising men have not felt it necessary to devote much time to the study of poor soils, worn-out soils, and the like. But now the cry of lessened production in proportion to the population is everywhere heard. The census figures emphasize it. The increasing cost of living has close relation to it. More and more attention

does not sound especially intelligible. The chemist knows that stearic acid is a common product of fats. The new acid found in the soil is closely related to it, and it is approximately, though not exactly, stearic acid twice oxidized. Its discovery was first treated of in a bulletin in 1909, of which Dr. Oswald Schreiner and Dr. E. C. Shorey were authors.

What is now known of dihydroxystearic acid is not theory or guesswork. For a number of years, the best soil chemists in the employ of the government have been trying to learn more about it. A bulletin has just been issued under the sanction of Doctor Whitney and Secretary Wilson, which embodies the most important facts known about it and its relation to infertility of the soil. This bulletin was prepared by Dr. Oswald Schreiner, scientist of the Bureau of Soils in charge of fertility investigations, and Dr. Elbert C. Lathrop, scientist in fertility investigations, in the Bureau of Soils.

It is not too much to say that the discovery by the Bureau of Soils, if borne out in the future by further experiments, as it seems to have been thus far borne out by past experiments, is the beginning of a revolution in soil science. It seems to point the way to correct knowledge of what is the matter with a given infertile soil and thence to the right treatment of it in any given case.

Poisons are Poisons

Nowadays, nobody would seriously dispute that, in the case of man and animals, accumulation of waste, such as urea, uric acid, and the like, in the system leads to disease and speedy death, or that the re-breathing of exhalations from the lungs leads to distress. It has been shown that the fatigued muscles of the human or the animal give off a poisonous product. It has even been shown that extracts from fatigued muscles will, when injected into animals, produce exhaustion and fatigue. The sickness of typhoid is due, it is now conceded, to the presence of the typhoid-fever germ. If a human being who has been living in a miasmatic region begins to languish, we at once say he has malaria, and examination of the blood will doubtless reveal the positive existence of the germ of the disease.

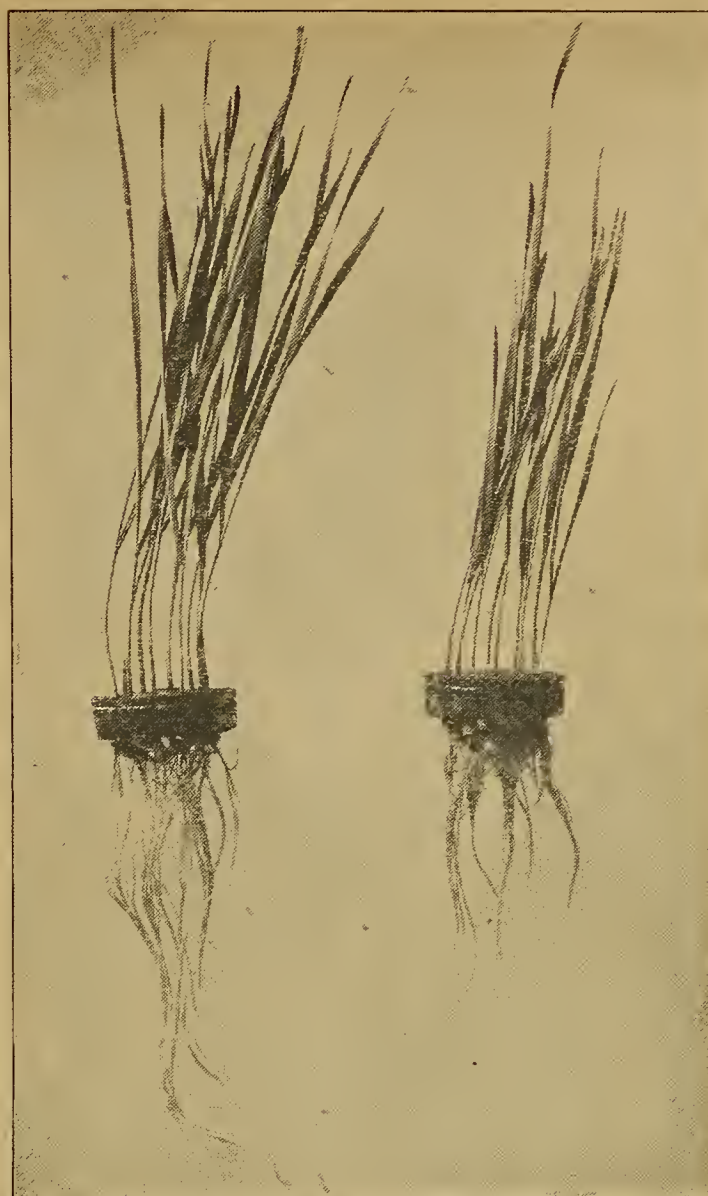
In other words, comparatively few people nowadays dispute that if a human or an animal is sick, there is in the system some positive substance or element of a poisonous or toxic nature which interferes with the proper performance of the functions of the body. Assimilation is probably arrested and there are other disturbances. The patient may eat food and may get no good out of it and lose flesh. The poisons or hurtful substances have got the upper hand in the system, and they operate to more than counterbalance such functions as are healthful.

Yet, hardly disputable as these things are, it is a strange fact that there has been remarkable slowness in applying substantially like principles to the soil. The propositions set forth by the Bureau of Soils in this relation have been more or less scoffed at and combatted.

However, it has been shown that there are certain substances in infertile soil that will just as truly cause the plant to sicken and perhaps die as harmful germs and toxic substances will make the man or the animal sick.

In its way, there is reason to believe that the discovery of the properties and effects of dihydroxystearic acid is as important in a soil sense as the discovery of the typhus germ was in its relation to human health.

That infertility or unproductivity in soils is not always determined by a lack of beneficial elements like nitrogen, phosphorus or potassium, as revealed by chemical analyses, has been repeatedly emphasized by the Bureau of Soils. Moreover, Doctor Whitney and his aides say it is being recognized more and more, both in this country and abroad, judging by the published reports of investigations in the last three or four years. This idea has forged ahead in spite of much dissent in the past. In the bulletin just issued by Doctors Schreiner and Lathrop strong emphasis is laid on the fact that soil may be infertile and yet have a sufficient, if not plentiful, supply of the usual plant nutrients. The fact is emphasized that soils may be unproductive, not because a beneficial substance or substances are absent, but because a substance or substances deleterious to the



Wheat-plants grown in water containing the same plant-food as does a normal soil, but the ones to the right were grown in a solution which also contained dihydroxystearic acid. Note the result. It is the same in soils

growing crop are present. It is not asserted, of course, that this is strictly a new idea. It is, in fact, an old one, but the point emphasized in the recent bulletin is that it has been shown to be true by the hard, cold revelations of chemical analyses. The chemical laboratory in this case has come to the aid of an old theory and proved its soundness in a way that is convincing.

Prevalence of the Acid

The investigation which has resulted in publication of the facts concerning dihydroxystearic acid was a partial survey of the nature of soil organic matter in the soils of this country. Soils from eighteen different states, extending from Maine to Oregon, and southward to Texas, of widely different origin, topography, texture, climate, drainage and croppings, were examined. In the organic matter of these soils,—and by organic matter is meant that part of the soil that comes from decay of plant life and the like as distinguished from the disintegrated rock material—while numerous chemicals are found, the most striking fact, so far as the finding of harmful properties was concerned, was the proof of the frequent occurrence of dihydroxystearic acid. Actual tests have shown this to be harmful to growing plants. One third of all the soils examined showed the presence of this compound.

It was found in virgin soils as well as in soils under long cultivation; in soils continually cropped as well as in soils under permanent sod; in soils from the Atlantic Coast; in soils from the Pacific Coast, and in soils from the Gulf States. The compound is therefore a common soil constituent and is likely to be encountered in soils anywhere. Doctors Schreiner and Lathrop say its formation or its accumulation is doubtless due to local conditions in any one section, but these local soil conditions are not confined to any one region of the United States and probably not to any country or continent.

When the soils examined were separated into good and poor soils, as based on field observations, their relationship with dihydroxystearic acid was striking. Among the good soils, only two contained the compound in question, and they were only moderately productive. Among the poor soils, the percentage of those containing this compound was fifty-one.

Of the soils which had a record for infertility, the dihydroxystearic acid was found in each and every case.

[CONCLUDED ON PAGE 10]



Cow-peas attempting to grow. Pot 2 shows a good growth, but Pot 1 is inferior because the soil is "cow-pea sick"

is being given to lands hitherto esteemed poor, infertile and more or less worthless for farming purposes.

The true solution of why a given soil will not raise good crops is of obvious importance. Until it is found, it is impossible there shall be agriculture of the highest intelligence and of the most productive results. If a patient is sick, the first question to be solved is to diagnose his illness. It is a comparatively easy matter, once the particular variety of sickness is found out by the physician, to write out a prescription. The incompetent doctor is generally the one who cannot tell what is the matter with the person whom he is called on to treat. He is working in the dark.

The same is just as true of soils. Until the causes of poor soils are known, there can be no correct treatment of them. This is just as much of an axiom with respect to the ground as it is with respect to the human being.

Much Work Has Been Done

The Bureau of Soils of the Department of Agriculture has been working for years on this theory. Dr. Milton Whitney, chief of the bureau, and his associates believe they have made great progress toward the goal. They have long been convinced through actual experiments that there are in poor or infertile soils substances of a positively injurious sort, or, to speak more technically, that there are organic constituents in the infertile soil which are harmful to plants which one may attempt to grow therein.

It is the purpose of this article briefly to tell of one of these substances, the most important one that has yet been discovered. It is known as dihydroxystearic acid. To the person unfamiliar with chemical terms, this name



No dihydroxystearic was found in this soil



In this soil dihydroxystearic acid was found

Market Outlook

A Change in the Hog-Market

THE middle of October marked a change in the governing conditions of the hog-market. Prior to that time, during the latter part of September and the first half of October, the prices kept slipping down under the continuous heavy marketing, and the killers seemed to have but little interest in buying, for it was to their advantage to be indifferent. The third week in September had the heaviest receipts for that week in six years, and the last week of that month broke a ten-year-ago record for that week. Under such circumstances—an overwhelming supply and a narrow demand—prices went rapidly down. While the packers have put to good use this abundant supply of pig-meat, a greater depletion of the winter's heavy pack is made certain.

The cause for the increased heavy marketing of pig stuff is mainly attributable to cholera or a fear of it, because of its presence in the neighborhood. East St. Louis reports that few sick hogs are reaching that market, while Sioux City, South Omaha and Denver report almost none. Chicago, South St. Joseph and Kansas City report that large numbers of cholera-stricken hogs have reached those markets during September and October. The territory surrounding Chicago is almost without hogs, so close has been the marketing of the live ones.

According to Charles Dillon of the Kansas Agricultural College, cholera is everywhere in that state. The legislature's appropriation of three thousand dollars for the manufacture of cholera serum proved to be a mere pittance compared to the needs. The outbreak is earlier than usual, and, although the college had forty thousand doses in cold storage as a reserve, one month's demand used up the supply calculated to last six months. Since the outbreak the serum plant has been worked to the limit of its capacity, but the demand is far in excess of the supply. Success with the treatment has been general, and it is to be hoped that the actual losses will not prove great. As a sample of the success, the Sherman Ranch, with its seven thousand hogs, has had four or five outbreaks, but with the prompt injection of serum the loss has been but one hundred and fifty head. Many Kansas hogs have gone to St. Joe or Kansas City because of the inability to get serum, or a preference to market in place of treating.

All during this flood of pigs, which began in July, choice fat medium and heavy packers have been a scarcity due to the fact that there are none in the country, and consequently they have not suffered the decline the lightweights have. Even the choice light shipping and selected hams do not command the price that they do. During this same period the market for the pig end was decidedly unsatisfactory. With a flooded supply, it was somewhat a bargain counter, for every rise there was a reaction twice as strong.

About the middle of October the speculative interests and killers began to realize the actual country conditions, and the trade showed a gaining activity. Statements were frequently made in yards circles that heavy hogs were at bottom prices. M. J. Keenan, a veteran salesman in the Chicago yards, with thirty-five years at that place to his credit, voiced his opinion that in his experience choice fat medium and heavy hogs had never before been so scarce at this season. This is evidence as to what can be expected later on in the heavy hog market. Prices on the heavyweights were forced up in spite of the efforts of the packers and a sixty to seventy cent gain was made in two weeks, while light stuff remained in the rut.

There are other elements which will help the market in its rise. With the close of the Jewish holidays, there is an increase in the demand for beef which will indirectly benefit pork demand. Cheap pork has widened general domestic consumption, and this will not decrease with the coming of cold weather. Porcine diseases and foot and mouth disease are wide-spread in Europe, causing considerable loss to all live stock. This will widen export demand for all classes of meat, and, as pork is cheapest and most plentiful, the hog-market will receive the greatest benefit. Already the shipments of lard across the water have grown to be double the size of last year's shipments for this season. Eastern shippers are filling larger orders of the heavier weights than they were early in October. The shortage of finished beef and mutton during the coming spring and summer is becoming more and more apparent.

All of these conditions will help to keep the prices on the upward trend and there seems to be better times ahead in the hog-market. Of course, there may be declines, but these will doubtless be short-lived. The market now presents a two-faced appearance: a strong rising market on the finished hogs coming from feeders in healthy districts and a demoralized market on all light stuff from scared or actually stricken districts which are flooding the markets and which they will probably continue to do until about Christmas.

L. K. BROWN.

Sheep Looking Up

VERY visible brightening up in all lines of the sheep trade became evident by the second week in October. A better-finished lot of both sheep and lambs began to come in, especially from Nevada and Idaho, while natives seemed to take a similar upward turn, and the market responded by a similar rise in prices of from fifteen to fifty cents, and offerings, though large, were met by a ready sale, the top of the market being attained by the end of the week, the demand for good feeders and prime breeding ewes being quite active.

Good lots of lambs from Nevada sold readily at \$6.25, while some specially good lots from Idaho sold for \$6.40, the killers taking all they could get at the latter price, though common sorts had to be content with as low as \$5.25. Best native lambs went up to \$6.25, a quarter better than the week before. Wethers went up to \$4 and yearlings made from \$4 to \$4.50; and many breeding ewes were taken at from \$4 to \$4.50. I make these quotations to show that the upward turn has taken place somewhat earlier than I expected, though my faith in its coming has never wavered.

The Shows

The life and animation shown in the sheep departments of the state fairs has been a revelation. At the Ohio fair, for instance, the show of Shropshires, both native and imported, is said by competent judges to have been the finest display of any one breed ever made in America. This seems to show that when men as well fitted by experience, and as shrewd by nature as these importers and breeders of pure-bred and high-priced sheep, should show so much activity and daring

farms from state universities, determined to succeed in the animal, as well as in all branches of their profession, will have a most important result in raising the science of agriculture to its proper level among all classes of farmers.

JNO. PICKERING ROSS, Illinois.

Feeders Good Property

MARKET reports show that the movement of cattle to the country decreased from last year; especially is this so east of Chicago. There is a strong feeling among cattlemen that when the usual full runs of cattle off grass let up there will be a marked advance in stocker prices for good cattle of any age or size, even in spite of the fact that feed of all kinds will be high. This is as it should be, as all feed this year has a value, and stock cattle bought now ought to be worth more in two months.

Elevators here in this part of the state are offering to contract new corn at fifty-two cents per bushel. The chances are that corn and hay will be bought cheaper in the spring than now. It's always the unexpected that happens. When everyone is saving corn and hay on the supposition that they are going higher, someone is liable to get left. Because, although we may have a short corn and hay crop, we by no means have a failure, and if the majority of small feeders lay down, this will curtail the demand for corn considerably.

The spread between common and good cattle keeps widening all the time, as good cattle are getting scarcer. When the grass run is over, it would seem as if a sharp advance in beef is due. There is only one thing to temporarily stop it, and that is the

figures which he had, showing that a certain one of his patrons received one hundred and ten dollars per cow last year from a herd of thirteen cows. "Now," said the creameryman, "had this man raised his grain and other feeds that his herd consumed, instead of buying it, he would have cleared up a nice little lot of money on his thirteen cows."

Surely, there is no denying the last part of this statement, but the conclusion that this farmer ought to have raised his grain and forage feeds is not by any means so sure. I found that the feeds in the winter had been wheat-bran, gluten and corn-meal. At the time I was talking with this creameryman I did not know what was fed, however my answer to his statement was as follows: "This patron of yours must surely be working his farm without much hired help. He is, therefore, able to milk his thirteen cows and take pretty fair care of them, and carry on the usual farm practice of growing a patch of potatoes and a garden without hiring much help. His feed-bill may run fifteen to thirty dollars per cow, but perhaps he is saving more money than he could if he kept a hired man and tried to grow all his roughage and grain feeds, considering his location. He can buy feeds very well where he is located, and as his farm is small he cannot raise enough at home for his cows." The creameryman thought, however, that the hired man could be made profitable, but I must insist that he hasn't had experience in trying to get good help on the farm for the last few years.

I am a strong believer in growing all the feeds possible at home, and feeding them out, and returning all the fertilizing elements to the soil; but I also believe that when a man is making money, and good money at that, on the farm buying a great part of his feeds, even if the price is a little high, I say just go on and buy all that is necessary, so long as there is still good profit remaining. In the case of this man above mentioned, it would hardly be profitable, I think, for him to try raising his feeds.

We shall be glad to have our dairy and stock-feeding readers who need help in arranging satisfactory rations send us a list of the feeds they have on hand and commercial feeds accessible, with prices charged, together with size and age of the animals to be fed and fat per cent. of milk produced, and we will then supply a ration covering their needs.

A Feeding-Floor for Hogs

A GOOD feeding-floor is a necessary part of every hog-yard feeding equipment. It is of greatest value in muddy times, when it is impossible to feed on the ground in the yard and when the troughs are almost mired in the mud if set in the open. On a feeding floor or platform the troughs can be cleaned out and the slush shoveled or drained off the surface. This makes a solid and fairly clean place upon which to feed, even though it may be somewhat wet. Then, again, when there is snow on the ground, the floor can be very easily shoveled off and kept free for feeding purposes.

The best material for a feeding-floor is probably cement, prepared about the same as for a walk. We once constructed a sixteen-by-forty-eight-foot feeding-floor from old bridge lumber. We bought the floor and stringers of a fifty-foot bridge for five dollars. With very little additional expense, we built the above-mentioned feeding-platform, which did excellent service for years.

In locating a feeding-floor, a spot should be selected that is as convenient as possible to feed and water and to the hogs' sleeping-quarters. It should be built sufficiently high, so that it not only will be above the surface drainage of the yard, but should allow quick and thorough drainage of its own surface.

Where heavy winter feeding is to be done, the feeding-floor should be located where it will get as much protection as possible from surrounding buildings and trees. The reason for that is that the hog will not stay out long enough to get a good fill if he is exposed to a stiff, sharp wind. In many cases it will be advisable to put a roof and sides over the floor to make the best of winter feeding.

A feeding-floor has several minor uses and advantages. When it is fenced and has gates at either end, as it should be, it is a very easy matter to close the gates and put out the feed before the hogs are allowed to enter. It is a very easy matter to close the gates, leaving openings of a size suitable for the pigs when it is desired to feed them separate from other hogs in the same yard. It also makes a nice loading-floor upon which the hogs may be driven preparatory to being loaded into the wagons. H. E. MCCARTNEY.

Don't Hurry Them

IN PUTTING together a flock of breeding ewes, there is at the present time much danger of being tempted to include young ewes that catch the eye, because they appear strong and well grown. They are seldom fit to assume maternal cares before they are fully eighteen months old. Even if they produce good, strong lambs, they are seldom able to find sufficient milk for them; or if they are able to fulfil all these duties, you will be likely to find a spoiled ewe next season. There is real economy in giving them this due advantage of time, because they will cost but little and will more than repay that little in clearing up weeds and manuring the farm; and when it comes round to the time of mating them, they will be apt to present you with two sturdy lambs, J. P. R.

FARM AND FIRESIDE Now a Bi-Weekly

BEGINNING with this issue, FARM AND FIRESIDE becomes a Bi-Weekly. This means that, instead of 24 copies each year, you are going to get 26 copies of this paper, and we are going to try to make each copy bigger, more wholesome, instructive and in every way an improvement over our previous issue. This means that our subscribers will receive bigger and better value in FARM AND FIRESIDE during the next year than ever before. Then, too, you will know just when to expect the paper. It should reach you every other Saturday. In case your copy does not reach you on time, we will consider it a favor if you will drop us a postal, telling us about the matter.

DON'T MISS READING OUR SPECIAL SHORT-TIME OFFERS ON PAGE 28

in venturing their time and capital in any trade, they must feel an undoubting confidence in its near future, and that the demand is going to be for their high-priced animals. Reports of sales to home breeders fully confirm the truth of this view. Men are not going to buy high-priced mutton rams and ewes just to sit and look at them.

The College Boy

But there is another phase of this growing interest in sheep culture that I think is of far more importance than the activity of importers, and that is the interest and enthusiasm which students and graduates of the various state colleges of agriculture are taking in it. At the Ohio State Fair, at Columbus, for example (I have not the space to give an extended list), a noticeable feature was the number and quality of the sheep exhibits shown by pupils or graduates of their own breeding and preparing. One, a graduate of 1905, Mr. L. B. Palmer, showed twenty-seven exhibits, mostly Shrops, and took twenty-one ribbons, together with the magnificent loving-cup subscribed for and donated by the students to the exhibitor of the best five sheep and lambs registered, owned and bred by a former student of their Animal Industry School.

At the Ohio State Fair at Columbus, buyers were present from South Africa and, in fact, one may say, from all over the world, and sales were reported as unusually good.

But it is not so much from the fact of individual students gaining prizes and going into the breeding business themselves that the future of a higher sheep culture is assured.

Some thirty years ago, I had sent down to me by the Indian Bureau, to a farm in Illinois, some thirty Indians to be instructed in agriculture. I was ordered strictly to see that all their work was to be "hand labor," for the bureau did not desire that they should be accustomed to the use of machinery which they could not pay for, and they were supposed to be already lazy enough by nature. Well, this system seemed good enough for their reservations, and by hard work in that case produced fair results; but I do not think that that class of agriculture will be found suitable to a great population needing animal food; and the leaven of highly instructed young Americans going out to their

moderate price of pork and mutton on the hoof.

If we continue having our markets flooded with little pigs and the cholera continues among hogs in Kansas, there may be a change in this direction very soon.

W. S. A. SMITH, Iowa.

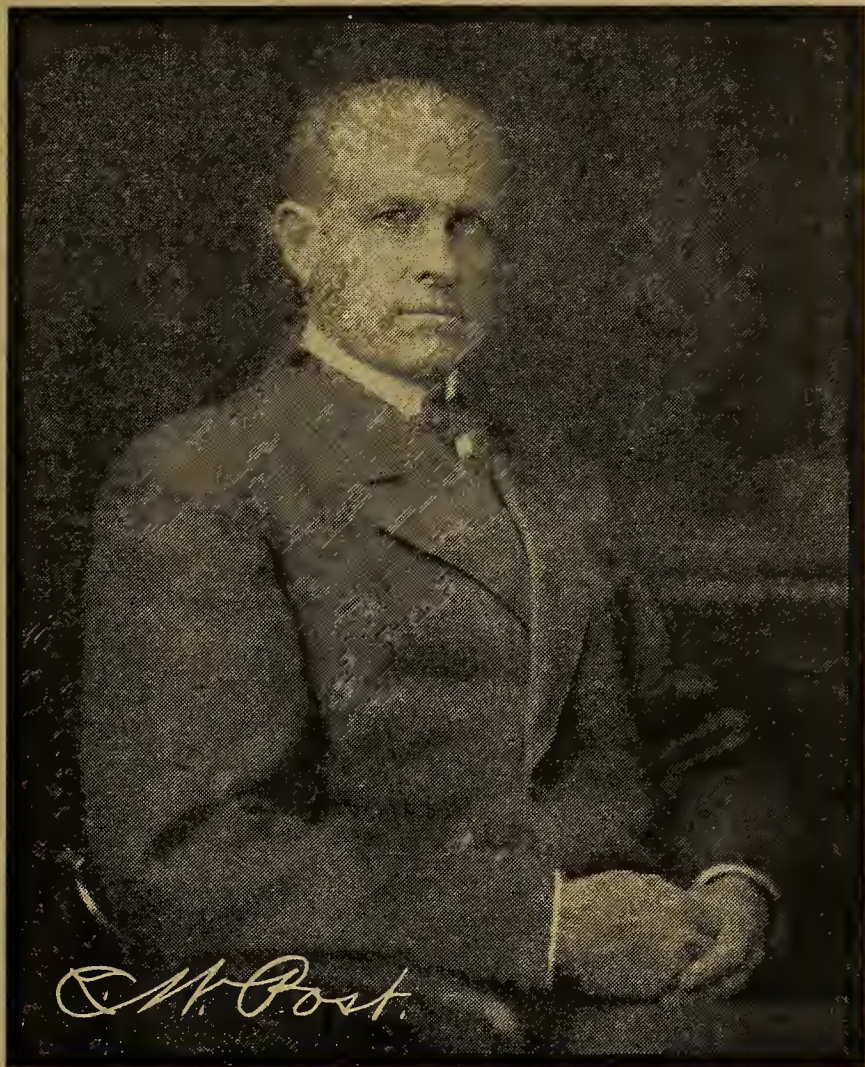
Shall Feeds Be Bought?

THE question whether to buy or grow some portion of the feeds required for the best adapted milk-producing ration confronts a large proportion of dairymen in most dairy sections. This is a very practical economic problem, and the logic of the letter from R. B. Rushing which is here given is convincing under circumstances such as described. Furthermore, purchased feeds, wisely selected, and fed in conjunction with home-grown feeds to provide a well-balanced ration, are at times an economical way of buying fertility. A ton of bran at present unit values of nitrogen, phosphoric acid and potash provides very close to eight dollars' worth of fertility, and a ton of cotton-seed meal, a fraction over thirteen dollars' worth of fertility after being consumed by the cows.

On the other hand, when feeds are purchased where help and equipment are sufficient to grow the needed supply, such unnecessary expenditure must be charged to the loss account. A shrewd, successful dairyman assures us that the expense of growing his dairy feeds is practically the same as when wheat, corn and oats sold for approximately one-half less than at present, in consequence of the greater efficiency of farm machinery and better understanding of scientific aids to farming.

It is especially feeds that I am speaking of just now, however, and the best way to get them. There is a very persistent cry in some quarters that a farmer ought not to buy anything that the land and the climate allow him to produce. This is very good advice, in a way, but I fear that a great deal that has been said in this connection has been ill-considered. I do not believe that it is economy on the part of every farmer to buy feeds, but there are certain conditions under which it is surely profitable for him to do so. Here is what seems to me to be a case in point: Recently I was in a creamery, and the accountant called my attention to some

Moulding Troubles Into Comforts



YEARS AGO financial disaster and about eight years of invalidism pushed this man into long and exhaustive study of food and beverage better for human health. His own need taught the need of others.

He said: "Thanks for the experience."

Every obstacle in human life is for a purpose.

Overcoming obstacles strengthens character, and, rightly viewed, they can be turned into blessings.

Nature's way to strength of body and mind is through trials and toughening experience.

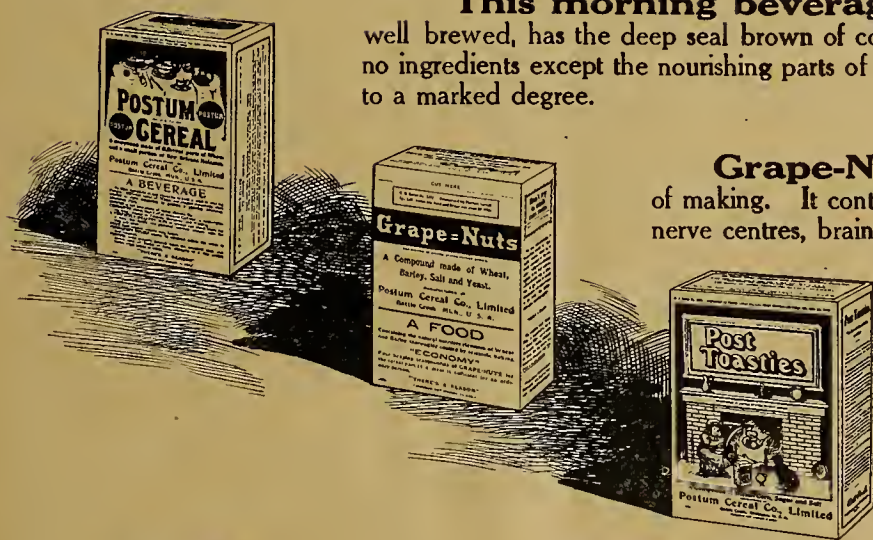
Take your "bumps" with a smile (even if a bit grim at times) and extract the essence. This man's experience gave to the world better food and drink for the healthful welfare of millions.

The world repaid him a hundredfold. So the world will repay each one who rides down obstacles and considers them as strength-giving experiences for future attainment.

The foods were worked out from years of skilful training, each for a purpose, and hence the world-famous phrase,

"There's a Reason."

This morning beverage was perfected for those who are unfavorably affected by coffee. Postum, when well brewed, has the deep seal brown of coffee and a flavor very like the milder brands of pure Java, but it contains absolutely no ingredients except the nourishing parts of wheat and New Orleans molasses (in small proportion). Its use is health-giving to a marked degree.



Grape-Nuts was made to supply a nourishing food partly digested in the process of making. It contains the most vital properties Nature demands from which to rebuild the nerve centres, brain and solar plexus, and is wonderfully easy of digestion.

Post Toasties are made of thinly rolled bits of white corn toasted to a delicate brown, and present one of the most pleasing foods that the palate is called upon to criticise. The nourishing properties of Indian Corn are sufficiently well known to require no further comment.

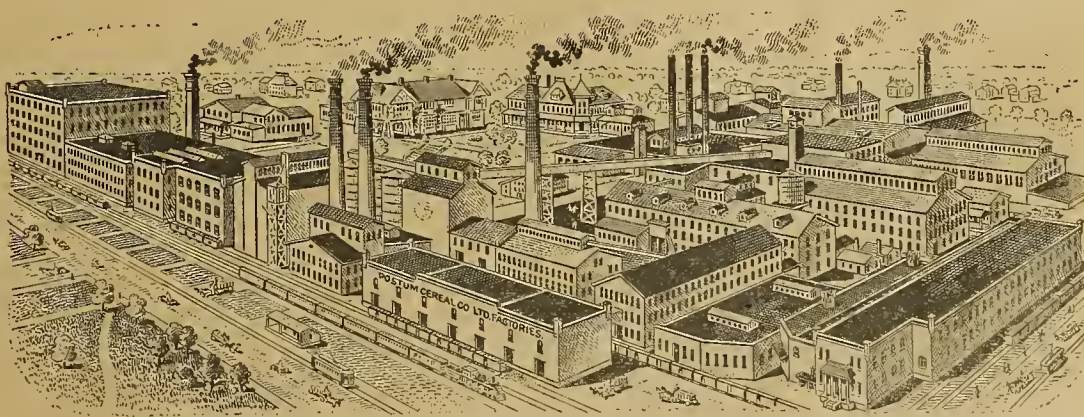


"Little White Barn"
where the Manufacture of
Postum was Started Jan. 1,
1895.

Postum was first made in the little white barn still preserved in the midst of the great group of factories now composing the famous pure-food works at Battle Creek.

The growth from the humble beginning to the present mammoth plant is another illustration of "There's a Reason."

A profusely illustrated book showing the processes will be sent to mail inquirers who ask for "The Door Unbolted."



Postum Cereal Co., Ltd., Factories at Battle Creek, Michigan, as They Are Today

"There's a Reason"

Postum Cereal Company, Limited, Battle Creek, Mich., U.S.A.

Canadian Postum Cereal Co., Limited, Windsor, Ontario, Canada



In the Bell Democracy

Membership in the telephone democracy of the Bell System means equal opportunity for every man, no matter who he is or where he is.

Each member of this Bell democracy has the same chance of communication, limited only by the distance the voice can be carried.

However remote, whether in the adobe house on the Rio Grande, on the Montana sheep ranch or in the isolated New England farmhouse, the Bell telephone is an open doorway to the Universal Bell System.

From each Bell outpost run lines that connect it with the central office—that nerve center of the local system.

Long distance and toll lines connect these nerve centers and furnish clear tracks for telephone talk throughout the land.

12,000,000 miles of wire are the highways over which 20,000,000 telephone talks are carried daily.

The Bell System binds together the social and business activities of a people in a shoulder-to-shoulder march of progress.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES
One Policy One System Universal Service

Farm Notes

One Artesian Well

LIVING in a pretty suburban home on the Earl farm, near Michigan City, G. O. Redpath has made the most unique and useful refrigerating system for household use to be heard of in these days of ice trusts and ice scarcity and high prices.

This householder has on his premises an artesian well one hundred and fifty-five feet deep. This flows an inch stream continuously. It is piped under the concrete floor in the basement of the house, where it connects a dumb-waiter system reaching from the basement to the kitchen. In the shaft of the elevator is built a zinc-lined box about four feet long, eighteen inches wide and as thick. The cold water from the well is piped into the space between the lining and the sides of the box, three sides and the bottom. There is an outflow that provides for the entry of fresh water all the time.

Another zinc-lined box, smaller than the other and arranged with a number of shelves and compartments, works on slides like the car of an elevator, and by means of a cord and a counterbalance the small refrigerator is made to travel from the big water-cooled box at the bottom of the shaft to a position flush with the cupboard door in the kitchen. Articles of food are in the dishes on the shelves, and the whole supply may be dropped down to the cooling position with a few touches of the fingers on the rope. Inside the small car the temperature is maintained at forty-eight degrees. Ample provision is made for the escape of air from the water-filled compartment.

Mr. Redpath first planned to have but one box, the large one, and to raise water and all the connections being made by a dropping and rising rubber tube, but it was found that a counterbalance sufficient to raise the box with its weight of water would require too much space, so he contrived the lighter shell to fit inside the big box.

The water wastes from the box into the flush-tank in a bath-room, thence running out to the lawn water-plugs, thence to a raspberry-patch, where it performs irrigating functions, preserving life of plants and even trees.

This single well, flowing only an inch stream, provides a water system for the entire two-story house, affording running water to the laundry, bath-rooms and to the kitchen sinks.

The water flows into a big horizontal tank in the basement. The pressure in this tank is so arranged that the switch of an electrical pump is turned off and on automatically. When the pressure is high, the pump is stopped, and when low, it is started. By the operation of the pump the pressure for the upper rooms is had. The natural pressure of the water in the well is sufficiently strong to enable the pump to be used at a cost for electric current at about fifty cents a month.

The great combination in conveniences and utilities was made available by the single artesian well.

J. L. GRAFF.

The Popular Gasolene-Engine

A POPULAR source of power on the farm today is the gasolene-engine. It is popular because the cost of fuel is slight. It is automatic in operation and does not require a skilled engineer; no water is required except for the cooling tank, and this may be used over again and again, which, when water is scarce, is a great advantage; there is no danger from fire or explosion; there is no expense when it is not running, and but little when it is running.

The gasolene-engine can be made to do many things on the farm. It can be hitched to a line shaft and made to run the feed-cutter, feed-grinder, corn-sheller, cream-separator, churn, grindstone, pump, silage-cutter, sheep-shearing machine, washing-machine and, in fact, it will do practically all kinds of work at a minimum of expense, time and labor.

It must be remembered that there are different sizes of gasolene-engines on the market and I do not wish anyone to understand me to say that the larger machines mentioned above can be successfully operated with a small-sized engine. Such machines as a cream-separator or washing-machine can be run with a one-horsepower engine, while such a machine as an ensilage-cutter will require a seven or eight horsepower engine. Hence, on every up-to-date farm there should be two engines, a small and a large one.

The gasolene-engine fills a long-felt want on every farm, and especially is this true on the farm where one must hire much help. Many farmers are paying out from \$175 to \$500 a year for hired help, much of which could be saved by the use of the gasolene-engine.

R. B. RUSHING.

Why farm the soil only for existence when you may farm air also by using legumes which take nitrogen from the atmosphere? It's worth thinking about, then act next year.

Winter Greens for Decoration

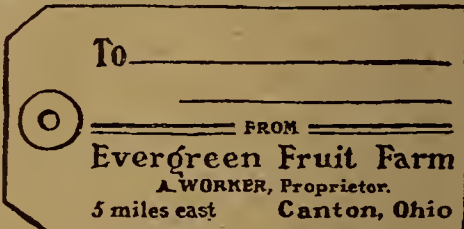
WHEN Jack Frost calls a halt on the wild-flower business, one may turn his attention to the firs and evergreens for Christmas decorations. Wild clematis, gathered just when it commences to feather, will remain in good condition for weeks if kept in a cool, dark place, and when there is none to be found in the woods, it will bring about twenty-five cents a yard. Maple, oak and other prettily colored leaves, should be gathered early and pressed between sheets of wrapping-paper. They bring ten cents a dozen later. Large ferns ditto. All Christmas greens should be gathered before Thanksgiving, otherwise they are liable to be so badly frozen that they will turn brown when brought into warm rooms. Bittersweet, partridge berries—in fact, all the late berries of winter-time—lose color and droop if left outdoors too long. Besides which, early gathering allows several weeks in which to arrange sales. Of course, it is the making up into decorative designs which brings the big receipts, for branches, that would bring not more than five cents in their original shape, double in value when woven into garlands by clever fingers. Cypress moss (or ground-pine, as it is often called) and bittersweet, intermingled, make a charming garland, which florists sell at twenty-five cents a yard. Set pieces to go over doorways are favorites with city people, and flat center-pieces for the dining-table. The latter must be made up on cardboard foundations, and the general Christmas effect can be accentuated by touching moss here and there with mucilage, and dropping minute bits of absorbent cotton on it. If the work is done lightly and cleverly, it looks like flakes of snow. Small bunches to attach to place-cards should be made up by the dozen. But there! what is the use of suggesting? The tasteful person, man or woman, once started on such interesting work, will conceive a hundred ways of manipulating the stores successfully for market.

MRS. KATE V. ST. MAUR.

System in Selling

DID you ever notice when you bought oranges of a first-class quality that they are wrapped in tissue paper and packed in straight layers in the box? Would you rather pay a little more for a box put up this way than get a promiscuous lot in a sack? Our produce that we sell in foreign markets consists of a great amount of tree fruits and onions, and we find that a good package and uniform system of grading pays every trip to that market.

At first we shipped our onions in barrels holding four bushels each and were quite well satisfied with that sort of package until we tried the sack. The sack which we use the most holds from one hundred to one hundred and twenty-five pounds and costs generally about five cents each. This is a burlap sack and has usually been holding coffee, so it is clean and in good condition for any other produce for which it is needed. We sew the sack about the same as a fertilizer sack is sewed. This leaves two ears on the top of the sack which are quite convenient in loading and handling. This method saves labor and money. A point that helps to sell is a marker of some sort which is placed on each sack as it is sewed up and loaded onto the wagon. We have a printed shipping-tag made and printed for us on purpose for this work, and it is well worth the extra cost in satisfaction and in time saved. The accompanying sketch may serve



as a model. Besides there is no trouble about lost packages from illegible marking, such as sometimes occurs with any but a printed tag. The manner in which our stuff is shipped and packed has considerable to do with our success, and it will help anyone who tries to market satisfactory products. An attractive package is a seller every time, no matter whether outside of onions or eggs.

R. E. ROGERS.

"Freedom" and "Slavery"

AT THE "Popple" corner grocery the other evening, Joe Hopkins was cursing the trusts and corporations for making him a "slave," and Sam Watkins, responding, said these institutions "owned him." Both men use from seventy-five cents to a dollar's worth of tobacco per week, and between them swill down at least a couple of quarts of whisky in nearly the same time.

The former ownership they call "slavery," the latter "freedom." Candidly, which injures them and theirs most, their slavery or their "freedom"? If they didn't have "freedom" to think with, methinks their slavery would disturb them less.

A. P. REED.

When the farmer produces what he consumes, he gets one hundred cents of the consumer's dollar.

KEEP YOUR HORSES IN THE FIELD - NOT ON THE ROAD

It frequently happens that feed-crops must be harvested just when fruit must be hauled to transportation stations. Both cannot be done at once, with one team. Either the fruit crop or some other crop must suffer from neglect.

Another thing: Field horses are often ruined by road work. Keep your horses in the field. Invest in an

International Auto Wagon

You will be able to go three times as fast, making three trips in the same time in which you formerly made one, catching early trains or boats. Your quick-spoiling fruit won't be delayed between orchard and market.

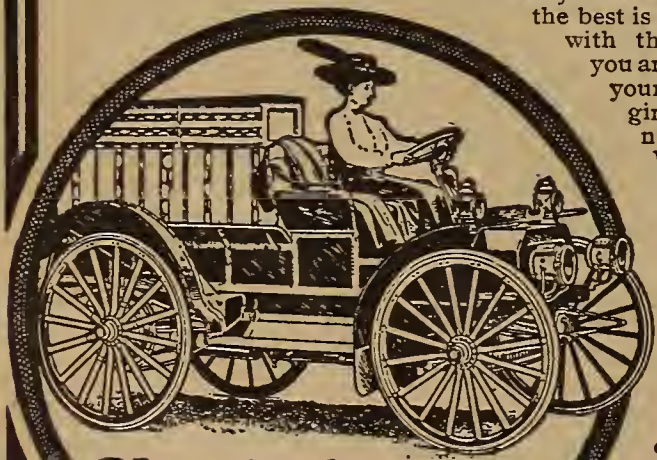
When you have two or three markets, the best is never too far to reach with the International. If you are too busy in the field, your wife or your boy or girl can drive the International to town.

Whenever desired, the International can be converted into a pleasure vehicle by adding a rear seat and top.

There are hundreds of other ways in which an International Auto Wagon is making and saving money for its owners. Let us mail you facts. Write for catalogue and information.

INTERNATIONAL HARVESTER COMPANY OF AMERICA (Incorporated)

117 Harvester Bldg. Chicago USA



Your Wife or Boy Can Drive This Car

Crops and Soils

Crop Rotation in the Northwest

THE time is rapidly approaching when the farmers of this section must either move on, or face the problem of husbanding the resources of their soil. This is evidenced by the present yields. The future yields under the present system are still less encouraging.

Although a large part of South Dakota and Minnesota is waking up to the fact that we need a more diversified and varied system of farming, there is as yet a lack of proper systems of rotation. Even where the old one-crop system has been abolished there is no systematic change of crops to take the place of the old method. We need not only a change of crops, but a systematic change, and with a definite purpose in view. It is this that is lacking in our present methods. There does not, as some seem to think, need to be any iron-clad rule, but in general the rotation should contain a series of certain kinds of crops, each farmer selecting the particular modification that is adapted to his conditions.

Among the things which this section needs in a rotation are: first, a cultivated crop to conserve moisture and to destroy weeds; second, the rotation should have some leguminous crop, such as clover. This crop will benefit the farmer in three ways: it will maintain the most valuable element, nitrogen, in the soil, it will add humus to the soil and it will bring plant-food up from the subsoil, where it may be deposited in the surface. To do any or all of these three things, we must, however, plow under all or part of the clover crop.

The need of some method to conserve all moisture possible has long been realized in this section, where the natural rainfall is often insufficient to produce a good crop. Some cultivated crop will help a great deal in doing this. Again, weeds are a consideration which the farmer dare not neglect and one which he has to a considerable extent neglected in the past under the one-crop system. A rotation is about the only method of keeping the weeds under control. By careful cultivation and clean seeding a farmer can keep weeds at a minimum.

After giving these two kinds of crops a place in his rotation, the farmer can add his grain crops, but the best results are obtained with not over four or sometimes five year rotations. A good rotation for this section is the following: corn, grain, grain seeded to clover, and clover. Before plowing under the clover crop the ground could be manured to good advantage. A crop of clover-seed may be taken off, but most of the hay should be plowed under.

A rotation similar to the above has also the added benefit that it will assist in a large measure in destroying harmful insect pests and plant diseases. During the last season much damage was done by grasshoppers, and, according to the state entomologist, the future outlook is somewhat serious if the farmers do not practise measures to protect their crops. With a good rotation the farmer can destroy insect forms that live on one plant by depriving them of their food. What is true of insects is also true of some plant diseases, such as corn-smut. The amount of corn-smut is greater this year than ever before, and, as there is practically no treatment for the disease, the only way is to deprive it of its host plant for a few years until the spores that are living in the soil are destroyed.

Every condition seems to favor the early adoption of some system in changing our crops. It is, perhaps, one of the first things that the farmer should look after, and it would be well if every man would work with his neighbor. It is only by the combined action of all that we get the best results.

JOHN SWENEHART, JR.

On New York Dairy Farms

THESE northern New York dairy lands are generally found in a fertile condition, due to a right rotation of crops. Methods are changing to some extent, but the two crops usually grown to maintain our dairy animals are corn and clover-hay. Our lands are plowed and cultivated to fit these crops into the rotation. We have the leguminous crop in the form of clover, which helps to maintain the fertility of the land, and we have our corn, which serves both as a cultivated crop and as the live-stock feeding crop. Thus, as a rotation on the large dairy farms, we have corn, oats, wheat or rye, and clover, which is succeeded by timothy. On the smaller dairy farms the rotation is a three-year one: corn, oats and clover. The lands are thus kept in a very fertile condition on these small dairy farms of from forty to sixty acres, because of the frequent crop of clover. The roots of the clover, in penetrating so much deeper than the corn roots, open up the soil, and allow plant-food to be used. Top-dressing grass-land is now the practice of the best dairy farmers, whereas years ago most of the manure was hauled out and spread on the land to be plowed under for

corn. This better method of handling the droppings of the animals gives a more even distribution of plant-food and a distribution which is quickly taken up by crops.

On nearly every one of our large dairy farms is a silo and from ten to twenty acres of land devoted to corn. This means a large acreage to be plowed, which results in less intense cultivation. The corn-land is given one or two cultivations. Then the busy season of haying comes on, when hired help costs so much. The corn crop only in a few cases gets the needed late cultivation. As a result, very weedy fields of corn of a large acreage are seen.

The land is in foul condition for the succeeding crop of oats and its seeding of clover. Hence results a poor stand of clover. In the end this is not a very successful rotation. The remedy, of course, would be to plow less land, cultivating it more intensely, as is done on smaller dairy farms. The general tendency is toward smaller dairy farms, where a closer rotation may be practised and less help be required. Very fertile farms result. Upon these farms live progressive young men, alert to the life and activities in this agricultural world. They are interested in improved and thoroughbred live stock, in better methods of farming and in the aggressive doings of their country and community. They better the world.

HARRY MASON KNOX.

EDITOR'S NOTE—The suggestions made by these two farmers are well taken. The subject of rotation of crops is ever increasing in importance as the farming sections become more thickly populated and as the cities increase their call for supplies. FARM AND FIRESIDE will have more to say on this important subject. If you have a particularly good way of handling your crops, write and tell us about it.

Straw Produces Crops

FOR many years the custom in letting a farm has been to insert the provision that no straw shall be removed from the farm by the tenant. This is a wise portion of the contract, but it would be much improved were it to read, that all straw not needed for bedding or feeding shall be spread on the land, preferably where potatoes are to be planted, not allowed to remain in stacks where thrashed. Although straw is inanimate, it is organic and capable of performing great service for the potato-grower, by absorbing and holding moisture for a growing crop. The present season has been a peculiar one in many respects. It has been a series of droughts, separated at long intervals by heavy rains. Most of these rains have come with such rapidity that the dry ground was unable to receive it at the rate of its coming, so a large portion ran away, carrying good soil in solution with it.

The month of May was very dry, but the fore part of June brought a heavy downpour, which evidently soaked up the straw which I had plowed under for potatoes. This water was in shape to be dealt out as the growing potatoes needed it through another dry spell. Later in the season, as the potatoes needed fertilizer, the rotting straw was supplying it. The result has been a good growth of potatoes, even during dry weather, and I only wish I had been able to cover all the potato-ground in that way. Some parts of the field were dressed with manure, instead of straw, and such places are giving no better crops than the straw-covered portions. One dry, thin knoll was given a coat of straw last summer directly after thrashing. The potatoes show no lack of moisture or fertility on this place. I believe the decaying straw has some power of bringing out the latent fertility.

CLARKE M. DRAKE.

Almost a Gold-Mine

FRITZ MIELKE, a farmer living near Watson, ten miles northwest of McGregor, Iowa, recently received from the Gilchrist Elevator Company of McGregor \$639.86 for a single wagon-load of timothy-seed. This is said to be the largest amount ever paid for a load of grain or seed in eastern Iowa. Mr. Mielke is not the only farmer who has found his timothy-field a gold-mine this year. The short hay crop in Iowa and other Middle West states for two successive seasons has sent the price of timothy-seed soaring to \$13.50 a hundred, double the amount ever paid for it before. Many of the farmers have cut their timothy with a binder and thrashed it from the shock. Others are thrashing from the hay-mow.

John Clark of Harper's Ferry, Iowa, realized \$700 from the seed of two hay-stacks. A neighbor farmer reports a return of \$40 an acre for the seed from a forty-acre field of timothy, and considers the nutritive value of the hay as fodder but little reduced, as the hay was well cured before the seed was thrashed.

FLORENCE L. CLARK.

Experiments have been inaugurated in the field culture of the swamp blueberry, and much will doubtless be learned. We can easily imagine that the farmer, with a good market town near-by, who will get into the field early with a variety of blueberry half an inch in diameter will do well financially and confer a boon on his neighborhood. Owners of drainable peat-bogs may well take notice.

All You Could Possibly Want—
Style, Quality and Wear—are Combined in the



Made in Baltimore—"The City of Economy."

WE guarantee "AMERICAN STANDARD 15" Suits and Overcoats to give absolute satisfaction.

Then we put such good material, such fine workmanship, and such splendid style into them that they cannot fail to satisfy.

We want every man and young man in the United States to learn that there is one \$15 clothes investment that carries no risk of disappointment with it.

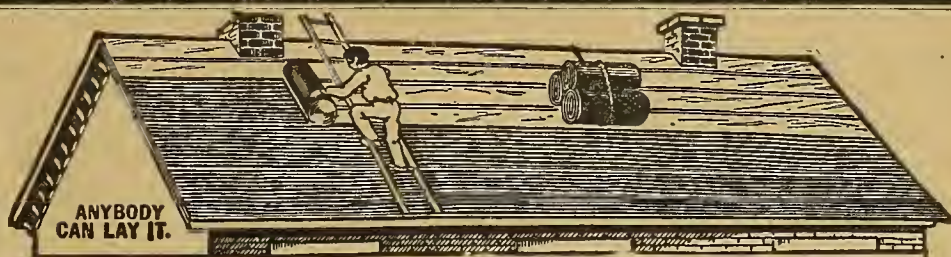
You can walk into any "AMERICAN STANDARD 15" dealer's store, select from the many styles and patterns on his tables and know absolutely that you are getting the greatest value that \$15 can buy.

You can feel that you are paying no more than the right amount for what you buy, because you are getting standard clothing at a standard price. If there is no "AMERICAN STANDARD 15" clothing dealer in your section as yet, send us your own dealer's name and your own name and address. We will mail you our style book, which will open your eyes to what \$15 will buy. And we will see that you are immediately supplied.

AMERICAN CLOTHING MFG. CO.

Dept. 3

Baltimore, Md.



ANYBODY CAN LAY IT.

Rubber Roofing

Warranted For Twenty-Five Years. FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla., Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga., Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY Weighs 35 lbs., 108 Square Feet, \$1.10 per roll.
TWO-PLY Weighs 45 lbs., 108 Square Feet, \$1.30 per roll.
THREE-PLY Weighs 55 lbs., 108 Square Feet, \$1.50 per roll.

TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

Indestructible by Heat, Cold, Sun or Rain.

Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank. CENTURY MANUFACTURING COMPANY, Dept. 802, East St. Louis, Ills.

SAVE YOUR BACK

High lifting tires and wears you out. Avoid it by using an

Electric Handy Wagon

Thousands have proved it the easiest and best wagon for farm work. Low down, broad tires, steel wheels—the complete wagon. Strength for all work, no breakdowns and no repairs.



10,000 High Lifts Saved

We will fit your old running gears with

Electric Steel Wheels

and make your wagon into a low down handy wagon. We fit any axle. A set of wheels at little cost gives you a wagon good as new. Write for catalog and particulars. ELECTRIC WHEEL CO., Box 13, Quincy, Ill.



POTASH

Direct from the German Mines
But it takes time to get it



See your dealer now, before he contracts for his goods, and urge him to get good up-to-date brands, containing 6 to 10 per cent potash, and to carry POTASH SALTS in stock.

There is profit in such goods both for you and your dealer.

You get more plant food for your money, your fertilizer is

better balanced, your soil fertility is conserved, and your crops are larger and of better quality. Potash Pays.

We will sell you or your dealer Potash in any amount from 200 lbs. up. Write now for prices and for free pamphlets giving just the facts you are looking for about improving crops and soils.

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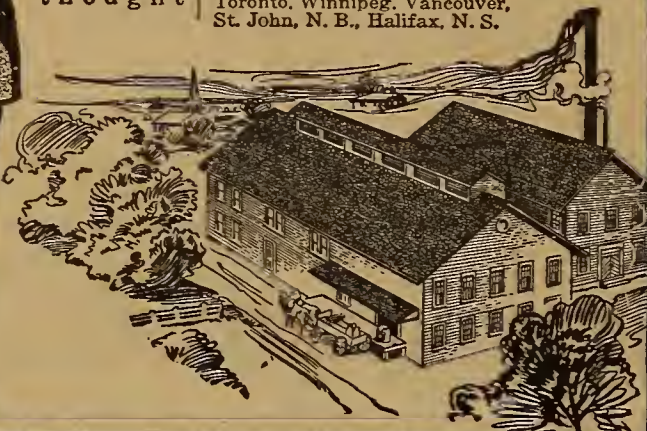
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Live Stock and Dairy

Growing Fat Steers

THE age at which steers should be fattened depends upon the feeds the feeder has at his command; as a rule, the younger the steer is fattened, the cheaper each pound of gain is put on, and the less the cost of production, the larger are the profits. The speculative element in the market price of the feeders and the fat steers and the individuality of the man doing the feeding enter into such an extent that one cannot say a steer fattens the most profitably at any age. It varies so with the different men. Some men never think of buying a steer under twelve hundred pounds in weight. They give such weight steers a short feed, and get them back to market in ninety to one hundred and twenty days. If the market has been favorable at both buying and selling times, there has been quite a bit of net money made, but if not, possibly there has been a real loss.

When a man is fixed to grow fat steers, he seldom, if ever, loses any money. When he owns his own farm, he never loses any money, for he has grown his own feed and has put the manure back onto the land, and that alone has increased his real bank-account—the soil fertility.

The essentials in growing fat steers are a good pasture, abundant clear, cool water and plenty of shade for summer; and the silo full of corn-silage, and either alfalfa-hay or cotton-seed meal, with corn-and-cob meal, for winter. With this kind of feed a bunch of steers can be kept growing and fat from the time they are taken from the cows in the fall till they are twenty months' old, when they should weigh fourteen hundred pounds or better. In following this plan, one must have the very best quality of beef-steers.

Until this year my feeding operations have been confined to sheep, but this fall I have put in some young steers, and expect to do so every fall from now on. This is the course I am following this year:

I bought the very best quality of five hundred to six hundred pound steer calves in the Sioux City yards when they were comparatively cheap in the late summer, and I put them in a pasture where there was an abundance of grass, shade and water, and the young steers began gaining from the day they got on the farm. Some time in October I will put them in their winter quarters, which is a big sheltered corral, in which there is an open shed and which I shall keep well bedded and comfortable. I shall start in feeding corn-silage, cotton-seed meal and shredded corn-fodder, and I expect the steers to make a gain of about fifty pounds a month per head through the winter and to be fat all the time, still making much of their gains by growth.

By the first of May my steers should each weigh about a thousand pounds, and there is a good profit for me to sell them at that age if the market is right. On the other hand, they have not cost me so very much and are in a fine condition to be put on a full feed of corn-cob meal, cotton-seed meal and wild hay and silage, and make the steers weigh sixteen hundred pounds by December 1st, when they should go on the market. They are good enough in quality to get to the top, and I can figure all that I can get from them above the first cost of twenty-eight dollars a head, plus the cost of the cotton-seed meal and interest on investment as gain, for the manure on the land pays for the labor and the feeds I raised.

PAUL H. BROWN.

EDITOR'S NOTE—Mr. Brown makes a pretty strong statement relative to the value of the manure. He indicates by that his appreciation of what soil-fertility means to farming operations. Certainly there is no loss in adding manure to soil if the work is done judiciously, and there is much gain.

Corn-and-Cob Meal

IS IT advisable to feed cows corn-and-cob meal together with other feed? A few people claim there is something in the cob that is detrimental to either cows or swine. Consequently an Ohio reader writes, asking what is true.

It has been found by numerous, carefully conducted experiments that corn and cobs ground together are of greater value for feeding cows or cattle than the corn alone, ground and fed separately. This is true particularly when the heavy feed of grain concentrates is being fed. The mixture of the cob throughout the ground grain allows the juice of the digestive tract to more fully act upon the grain, and the digestion and assimilation are more complete in consequence.

In the case of hogs, the cob ground with the corn is of no advantage and in most cases has been found to be a detriment. The hog, not being a ruminant, does not give the cobs the thorough mastication as is the case with cattle, and the hard particles of cob act as an irritant in the digestive tract.

B. F. W. T.

Do Milking-Machines Work?

I AM asked how many cows one can take care of with a milking-machine, also whether a machine will milk cows drier than can be done by hand milking.

Thus far milking-machines are not to be advised as unqualified successes. Where one is milking a large herd of grade cows, and labor is very high-priced and expensive, then no doubt a trial of the milking-machine is justified. The milking-machine does not milk cows drier than a man does; in fact, as a rule after the milking-machine has finished its task the cows must be stripped by hand. The machines seem to be the most successful when used on young heifers that have never been milked by hand. Cows accustomed to being milked by hand do not respond as readily to the milking-machine.

HUGH G. VAN PELT.

A Foe of Good Crops

[CONTINUED FROM PAGE 5]

It is regarded by the Bureau of Soils as settled, from the investigations made, that dihydroxystearic acid is either a direct or indirect factor in the low productivity of soils; direct because of its harmful effects on growing crops; indirect as an indicator of other compounds or conditions that cause soil to become less productive or even infertile. It is not asserted that it is the only harmful substance found in the soil, for this is only one of many substances, harmful and beneficial, which exist in soils and all of which play a part in its fertility or infertility. Presence of dihydroxystearic acid, however, must be accepted as a symptom of poor soil conditions.

The old views of soil organic matter, of soil humus, presence of humic acid and process of humification are overthrown by the light which has been shed on the nature of the chemical constituents of the organic part of the soil. Experts of the Bureau of Soils are able to show to the visitor to their laboratory no less than twenty-five definite chemical compounds which have been separated from the organic part of the soil. Others are rapidly being discovered. They are shown bottled up and labeled, if a visitor to the Bureau of Soils cares to see what they look like, and appear simple enough when examined. Dihydroxystearic acid, for instance, is a harmless-looking white powder, an aggregate of small white crystals. The same amount of fine table salt would not appear much different at a casual glance.

It has been said that dihydroxystearic acid is harmful to the growing plant. Just what is the nature of the harm or injury? A good illustration is the effect of the substance on wheat seedlings, which is fully described in a bulletin by Doctors Schreiner and J. J. Skinner. The effect first shows itself on the roots and later on the tops. The roots become stunted and develop enlarged, much swollen ends, the extreme tips being much discolored, sometimes quite black, and often turn upward at the end, giving the roots a hook-like appearance. The tops show a diminished growth, with thin stems; the leaves have a lighter green color than normal and, in later stages, or in a stronger solution, become yellowish at the tips and show a generally weakened condition. The amount necessary to produce these effects is quite minute, ten to fifty parts per million. With larger amounts, death of the plant may result. These same effects are shown by plant roots and tops grown in soil containing dihydroxystearic acid and in water extracts prepared from such soils.

It has been established, too, that the presence of this substance or compound so affects the absorbing powers of the roots that, although nutrients are plentifully furnished, the plant makes little use of them, except in the case of nitrates.

The questions that assume great importance, then, for the farmer are what are the causes of the existence of this foe of good crops and how is it to be got rid of. Its existence in the soil is shown to be due to poor oxidation or aeration. To drive it out, such soil treatments as promote good oxidation and the airing of the ground are necessary. But while these general statements are true, much remains to be learned as to just what sort of growth produces dihydroxystearic acid. It is thought to be associated with soil fungi, and some of the soils in which it has been found are well suited to the growth of fungi. The rootlets of plants growing in these soils are often infested with mold. Good reason exists for the belief that such molds may produce this substance from materials that find their way in one manner and another into the soil. Certain it is that the soil conditions under which it is found are generally poor drainage, poor aeration, too great compactness, deficiency in lime, lack of good oxidation, lack of adequate supply of nitrates and tendency to fungus development, along with exceptional poorness of crops. No single one of these factors can be said, at the present time, to explain its origin wholly. The remedies are found in liming, drainage and the introduction of good organic manures and fertilizers, along with thorough cultivation.

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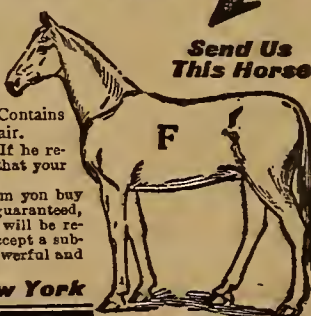
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Corn-Silage for Lambs

THE deservedly steady growth of the silo in popularity, as a means of preserving cheap forage for a time when it is most needed, is remarkable. There is no doubt whatever that corn-silage, perhaps with the one exception of alfalfa, provides the cheapest and best roughage for cattle, dairy cows and hogs. The spread of the silo cult enters more largely into farm literature at the present time than any other topic, and much credit is due to the writers who, seeing that the silo is a "good thing," do their best to "push it along." Their zeal, however, sometimes leads them to use arguments in its favor which, carried to their ultimate conclusion, might work considerable harm, and among the worst of these is the continual harping on the "cheapness" of silage.

In the breeding and feeding of live stock constant growth from the time of birth and the unchecked advance to early maturity are the points to be aimed at; of course, to be secured at the least possible cost. Failure to provide well-bred stock in starting the flock and, equally important, the practice of hunting around for cheap feed are sure to work against success, but a liberal and well-thought-out system of feeding and an entire banishment of waste in any of the many and various ways in which it is apt to occur in stock-feeding will win every time.

From their habit of eating weeds which no other animals will touch many people imagine that sheep are gross feeders, while, with the exception of the horse, they are really the most dainty of animals. When lambs turn away from their feeding-troughs, it is often not because their appetites are satisfied, but because something soured or otherwise unfit for them has gotten among their food, generally through some carelessness of the feeder. They eat certain weeds for the variety of their flavors, much as a woman mixes apparently incongruous materials in a salad. When out on pasture, a change of ground at least once a week is desirable, in order to give this variety. To facilitate this, fields of moderate acreage are best. Thus the sheep can choose for themselves, while in the yards they are dependent on the shepherd.

Professor W. J. Kennedy of the Iowa Experiment Station had an article in a recent issue of *Clay and Robinson's Live Stock Report* which puts this matter very clearly. He says: "When it comes to the question of furnishing variety for our flocks, we suffer by comparison with the English flock-master. There is no other class of live stock that responds so surely and rapidly as does the sheep when fed a variety of feeds."

In a former paper I drew attention to a series of most carefully conducted experiments by Charles F. Curtiss, director of that station, and advised every sheepman to get a copy of *Farmers' Bulletin No. 96* of United States Department of Agriculture, in which they are fully described. In February, 1910, a bulletin, No. 110, was issued from the same station, describing another series of experiments made "to throw some light on the subject of the winter fattening of lambs with especial reference to the use of corn-silage in that capacity." The experiments extended over three years, one hundred and four lambs being fed in three lots. Corn was the only grain used, except in the first year, when some oats, bran and oil-meal were added to the ration. The succulents used were mangels, sugar-beets, corn-silage and only a few turnips or rutabagas, the two last-named crops having failed. The lambs were pushed ahead as fast as possible, over two pounds of corn being given as a daily ration on some occasions. Space does not allow of details being given here; but at the close the conclusion arrived at as given in the bulletin was that the lot fed mangels turned out best; the dry-fed lot, second; the silage lot, third, and the lot started on sugar-beets and finished on mangels, fourth. Some ram lambs fed on sugar-beets developed affections of the kidneys, though this did not influence the gains made by them. Three of these died from stoppage of the urethra. The feeding-periods in the first year extended over one hundred and twelve days; the second, eighty-four days; the third, one hundred and sixty-eight days. I think that the long period during which the ram lambs were given sugar-beets, one hundred and sixty-eight days, was responsible for the renal affections, for I have found from my own experience that about four months was the limit to which lambs could be brought to stand this heavy feeding in yards, without developing diseases of that nature.

Professor Curtiss's earlier experiments, as given in United States Bulletin No. 96, which, for the most part, extended over ninety days, and in which a much greater variety of feeds were used, were more successful than the later ones. I would again urge on every sheepman the desirability of getting these two bulletins, as well as that on sheep-feeding: No. 49, United States Department of Agriculture, by Professor John A. Craig. JOHN PICKERING ROSS.

Remember how the price of stock cattle falls almost every season about the time we get them ready for market by heavy pasturing; then consider pushing the stock cows and heifers for the early market, before the rush.

Serum for Hog Cholera

A KANSAS reader is in doubt as to hog cholera and the serum treatment, which is now of paramount interest in a number of corn-belt states.

The investigation that has been carried on in hog cholera within the past few years has resulted in this disease being made preventable in the majority of cases where the serum treatment is used in time.

This hog-cholera serum will not cure a case of hog cholera after it has become established any more than vaccination will cure a human being who is sick with small-pox. The vaccination may reduce the severity of the case when done in the beginning of the disease or at the time of first exposure, but in no case has it been found to cure the disease.

There are two methods of vaccination using the serum treatment, one is to vaccinate with the hog-cholera serum alone, the process being to simply inject the serum into the muscles of the hog. This makes the hog immune against cholera for a time varying from a few weeks to several months. This is used when cholera already exists in a neighborhood or among some of the animals in a herd.

The second method is called the simultaneous method, in which there is injected at the same time, in addition to the serum, a small amount of blood taken from a hog very sick with the cholera. This method gives the hog a very slight form of the disease and as a consequence the animal does not take the cholera a second time, but great care is necessary in this treatment, or the form of the disease may be so severe as to sometimes cause the death of the hog.

Only those who are accustomed to the work, such as qualified veterinarians or persons trained for the purpose, can safely inoculate the hogs. The serum can frequently be attained from the veterinary department of the state experiment stations at nominal cost. Detailed information will also be furnished on application by a number of the state stations.

The dose of serum required for pigs weighing one hundred and fifty pounds costs about fifty cents for each hog, and for a shoat of one hundred pounds the cost will be twenty-five or thirty cents. This serum is furnished by the state veterinary department of the experiment station.

FARM AND FIRESIDE will more fully discuss this subject in an early issue. B. F. W. T.

Don't allow the "critter's" back to hump.

Rake up the cobs in the hog-lot every few weeks, and burn them, thereby keeping a clean, sanitary lot—one that will not cause so much waste of feed among the cobs and refuse. Then, the charred cobs, if the burning be checked before they are totally destroyed, will furnish the animals with that much-needed charcoal, which keeps them in a healthy condition by promoting the digestion and assimilation of their rations.



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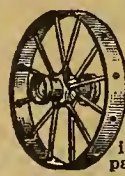
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A Plain Talk on Stock Feeding

Some folks imagine that a few ears of corn and a forkful of hay is all there is in the feeding question, but with the ambitious, thinking farmer, or the up-to-date stockman, it's a vastly different proposition. He looks upon the Steer, Cow or Hog as a machine for the transforming of feed into "Meat and Milk" and should regard himself as a manufacturer rather than a common laborer. No one denies the necessity of proper feed, and neither can anyone overlook the importance of proper digestion. The amount of growth and milk produced will always vary with the digestion. A healthy animal digests but half its feed, an unthrifty, ill-conditioned animal less. Now, if these are facts, why not pay more attention to digestion? Condition your horses, cows, sheep, swine and poultry. It was Dr. Hess' knowledge of wasted nutrition that resolved him to formulate a plan to save a part of this loss. The past 18 years that

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Home-Made Cream Cheese

The Opinion of One Who Has Done the Work

CHEESE-MAKING seems a great undertaking, until one knows how, and then it is as simple as butter-making. The home-made cheese is the most delicious. It can be made by anyone who is willing to follow rules exactly, but one who thinks she knows some easier way or shorter cut may be a pathfinder and she may prove a failure.

The utensils needed for home cheese-making may usually be found in any farmhouse. These utensils may be a clean tub, or even a barrel churn, to hold the milk, a boiler in which to heat it, a cup or bowl with which to dip off the whey, a dairy thermometer to test the heat of the milk. This can be bought for from ten cents up, and is very useful in the house, even when not making cheese. A cheese-hoop, too, will be necessary, but this is inexpensive and can be made by any tinner of a piece of galvanized iron. A hoop made with a diameter of twelve inches and about the same height will hold a cheese weighing twenty pounds, and will also hold one that weighs five or less. A follower will be needed, and this is merely a circular piece of the galvanized iron just the size to slip inside of the hoop. A circular wooden piece is also used. This has a handle put on so it can be lifted out of the hoop when the cheese has been pressed down some.

An impromptu cheese-press is made by nailing a piece of two-by-four to some outbuilding, in such a position that the cheese-hoop may be placed beneath it, and pressed by means of a lever.

Just How It is Done

Use the milk from both night and morning milking, unless you have a great plenty from one milking. A hundred pounds of milk will make, perhaps, eight or ten pounds of cheese. The milk should be weighed, and if you have no scales large enough to weigh the entire output, weigh a certain measure, and then estimate from such weighing. The milk at night should be cooled and stirred frequently, as the object will be to keep all of the cream in the milk, instead of letting it rise. Do not skim, but stir what cream rises back into the milk in the morning. Heat this night's milk to eighty-five degrees. Test the morning's milk, and put the two together when the temperature is right. Do not make the mistake of having the milk either too warm or too cold. It must be absolutely eighty-five degrees. If you get it too warm, it will take some time to cool it, and if you put the rennet in before it is cool enough, you will have a hard, tough cheese, but with the temperature just right other things will follow right, too.

Having the right temperature, add about a tablespoonful of cheese-color to each one hundred pounds of milk, and one rennet tablet for each one hundred pounds. The color is stirred right in, but the tablet is dissolved before adding, and it is then stirred into the milk. Cover with a piece of cheese-cloth and let stand for an hour. The rennet tablets can be bought at any drug-store, and they come in two sizes for one hundred pounds of milk and for five hundred, the smaller are most useful to the small cheese-maker. Do not use any more of the rennet tablet than is required by the weight of the milk, because this, too, will make the cheese hard, for it will set the curd too solidly; just the right tablet to just the right amount of milk brings out a correct result.

What Experience Teaches

When the milk has "set," which it will do in about an hour after the tablet has been added, take a long knife and cut it in inch squares. This is like cutting thick sour milk, and in a few minutes the whey will begin to rise; cover with a cheese-cloth, and dip the whey off. When you have removed about a third of the whey, lift the cloth and gently break the remaining curds; this will eliminate more whey, and this should be dipped off carefully. Handle it all with gentleness, as rough handling will cause the cream to escape with the whey. When you have dipped off all the whey and have a solid lump of curd, or nearly solid, take four quarts of the whey, and heat it to ninety degrees, and pour this over the curd, and break the curd gently. Remove this whey, and heat another portion of whey, and again pour over the curd. Now, when handling the curd, it should squeak a little, and by this little sound you will know that the curd is hard enough. If it seems very soft and milky, the whey should be heated to one hundred and pour over again, but if you have carefully followed each step in the directions, you will have the curd right without any trouble. Having removed the last whey, salt the curd, using five heaping tablespoonfuls of salt to each one hundred pounds of milk used. Work the salt into the curd, put a cheese-cloth into a milk-pail, and lift the curd into the pail on the cloth. Have the cheese-hoop clean and wet, and take it to

the place where the cheese is to be pressed. Place the galvanized circle on a clean board, and put the cheese-hoop over this; lift the curd into the hoop in the wet cloth, and press a little into shape with the hands; draw the corners of the cloth over the top of the cheese, and fold them upon it; place the wooden disk, or follower, upon the cloth inside the cheese-hoop, and press it down upon the cheese; put the lever in place, and weight a little. A piece of two-by-four makes a good lever, and a stone answers very well for a weight. Possibly a stone weighing twenty-five pounds will be enough at first; about noon put a heavier weight on, and at night lift the cheese from the press, remove the cloth, put on a clean one, which is wet, and put the cheese back, bottom side up; smooth the corners of the cloth, and put on the follower, and press again. Remove from the press in the morning, rub well with butter, and fold lightly in a cheese-cloth after having bandaged the cheese. Keep in an airy place, and warm; turn over twice a day, and rub each time, for a week; then turn once a day, rubbing each time. At the end of six weeks a fifteen-pound cheese should be cured enough to cut. Cheese is better cut and exposed to the air for some hours at first. It will become better and better until it is all used, if it has been properly made and cured.

The ordinary fly does not make mites in cheese; it is a little, slim fly, looking something like a mosquito, only not as large. It is very little trouble to protect the cheese from these flies, for they are scarce. This kind of cheese needs curing in a warm, airy place. A summer kitchen is a good place to keep the cheese until it is at least half cured. The cellar is no place for uncured cheese.

ROSE S. MILLER.

Horse Condition and Molasses

A FRIEND OF FARM AND FIRESIDE in Idaho has a team of young horses which, notwithstanding liberal feeding of alfalfa-hay and grain, are in poor condition. Their coats are rough and they show general signs of unthriftiness.

The kind of grain to be fed to horses must always depend somewhat upon the kind that can be readily procured. Two quarts of shelled corn in the morning (or its equivalent on the ear) and three to four quarts of oats at noon and at night, with proper quantities of hay, is a fine ration for horses that are used all the time. If they are idle much of the time, they should have less oats and considerable bran.

Where oats are scarce, corn-meal and bran, mixed at the rate of one part meal to two parts bran, makes a fine feed. Feed according to what the team is doing. Four quarts, three times a day when working; considerable less when standing in the barn.

Horses should get their meals at the same hour every day, should have water three times every day and a lump of salt in the manger. Often horses are out of condition, owing to the owner forgetting to provide some simple thing that they need. A feed which almost invariably gives horses a sleek coat and a fine appearance is the following mixture: A quart of corn-meal, a quart of bran and a pint of molasses three times a day for two or three months. If a team is working hard, the amount of molasses should be doubled. The horses will surely gain in flesh.

DAVID BUFFUM.

Handling a Nervous Mare

A FRIEND OF FARM AND FIRESIDE in Washington State has a five-year-old filly weighing about 1,100 pounds, gentle around men, but disposed to fight with other horses. When first purchased, she was a good driver and work horse, but when driven with a slow horse she forged ahead to such an extent that her owner was obliged to put a stay-chain on her. This made her balky and she also began to buck in the harness. She then refused to walk and either had to go on a trot or not at all. I am asked the course and the remedy for these actions.

The great trouble with such a mare was in working her with a slow horse. It is never wise to use horses of different temperaments together. What must be done now is to quiet down her nervousness and undo the mischief that has been done.

If she is being fed oats, the first step in the treatment is to stop this and feed corn instead. Feed no more oats till cured, and then restore them by degrees, according to the work she is doing. Always be very quiet when near such an animal and try to regain the mare's confidence.

Possibly some coercive treatment, such as has been previously described in FARM AND FIRESIDE, may be necessary. In handling an animal of this kind whose fundamental trouble is excessive nervousness, one should always keep his temper and always be firm and resolute. Horses vary in temperament and disposition: some require more severe treatment than others. Scarcely any two are exactly alike; and the judgment in applying treatment, which should always be used, must be supplied by the tamer himself. A nervous, irritable mare is almost always rendered more quiet and docile by breeding her.

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Garden and Orchard

Protecting Fruit-Trees from Rodents

The fall season brings to the attention of the farmer this subject. And it is of more than passing importance. The four following articles, coming as they do from four separate states, go to show the general interest manifested in matters of this sort. Each writer speaks from an experience of his own, but notice how all writers agree on the essential features of protecting fruit-trees from mice and rabbits. EDITOR.

Why Some Methods Fail

FRUIT-TREES most likely to be attacked by rodents are those that have been set out only one or two years. Damage done the first year is particularly harmful, owing to the tree not being established. They are therefore not able to supply the sap in abundance required to heal over the wound. It is particularly destructive to fall-set trees to be bitten by rabbits during the first winter, for the above reason. A large percentage of the trees so gnawed die.

A tree is counted immune from attacks of rodents at five or six years after being set out, although so much depends upon the condition of the orchard, weather, food for rodents, variety of trees, and so forth, that no fixed age can be given. For the first five years after setting, protection is necessary. After that time, if injury occurs, it may be considered as rather accidental.

As to the kinds of trees oftenest attacked, apple, pear, quince, peach, plum and cherry seem to be attacked in the order named. Cherry-trees have seldom been injured with me.

Here in the hills of southern Illinois every known protector has been used (I suppose) with varying results. Some use corn-stalks, which are good as long as they are kept in place. But the strings with which the stalks are tied soon rot, and pigs or other animals dislodge them. So, on the whole, they cannot be relied upon. Wire screen is used, but too often old screen is used, and this rusts out before one expects it.

Paper is good, but too often the strings with which it is tied are not cut in the spring, and the papers interfere with the circulation of the sap, and in due time the very precaution taken to protect the tree kills it.

By far the most satisfactory protectors I have ever used are cottonwood-veneer wrappers. I put these on with wire, which is held in place by a notch cut into the edge about half-way up and only hooked once to fasten it, so that it may be easily removed to look for borers, aphids and other insects. These wrappers last from one to five years, are cheap, handy and effective.

Various applications and washes have been used. Each year someone has found a sure preventive, but without exception, so far as it has come under my observation, all of these fail after a time. Perhaps the best application against rabbits is to smear the tree with rabbit-skins, or, better yet, cut open a newly killed rabbit and rub the trunk with the rabbit.

Almost all of these applications lose their effect after a week's hard freezing or heavy rains, and are therefore unsafe, for one is apt to neglect applying the remedy often enough. So far as I am able to judge, no wash or application is sufficient for one year, as claimed for so many of them. It is my opinion that no application not injurious to the tree is effective for six months, and in heavy rains or freezing it is not effective for six weeks.

The best means that I know of for protecting the orchard trees from mice is to keep the orchard free from weeds, particularly at seeding-time. A mowing-machine will do this. It takes cultivation and a hoe. If a space two and one-half or three feet about the tree is kept absolutely clean of weeds, little if any damage will be done by mice.

No form of wrapping material will keep out mice unless bound closely about the tree, which is sure to injure it. Mice can either burrow under or crawl over and, when once inside, the wrapping is a protection for them.

Rabbits do far more damage in young orchards than any other rodent, and I think the cottonwood-veneer wrapper, which can be had at any dealer in horticultural supplies, is the safest and cheapest and the most convenient protection against them.

R. B. RUSHING.

One Good Method

Rabbits, mice and other things go to make the rearing of an orchard unpleasant for its owner. A great many trees are ruined each year by rabbits, but rabbits are useful, and we cannot advocate wiping the rabbit out of existence.

Field-mice also add to the list a great deal of damage, and they are here to stay, it seems, so it behooves us to furnish the preventive rather than search for the cure.

Newspapers and even corn-stalks can be wrapped around the trees, and protect them from the chisel-toothed rabbit. Even rags

and tar-paper can be used, but from neglect we leave these on, and insects hide and breed under them.

We have seen veneer wrappers advertised and I suspect they are all right, but how many farmers avail themselves of such?

Horticulturists tell us to rake all the trash from around the trees in winter, and mound the earth up to a foot or more around the trunks, to prevent the ravages of the mice, but what if we carelessly forget to tear down the mounds when spring comes? I imagine the trees would start roots in this mound, and when time wears it down we'd have a tree with a part of the roots uncovered, where the aphids could have a time "all of their own."

We tried screen wire, and it worked all right for about a year, but it soon rusted out, and left the trees with no protection. Then we tried chicken-netting, wrapping it around the trees to protect them from the pigs and the rabbits, but forgot to loosen them, and the wires grew into the trees.

At the present we have something that satisfies us very well, and I think we will continue to use it. It is one-fourth-inch galvanized netting, known among hardware dealers as hardware-grade wire cloth. In fact, a coarser weave could be used, say three or even two meshes to the inch, instead of four. At any rate, it should be fine enough to keep out the mice as well as the rabbits.

For small trees we use a strip of twenty-four-inch wire cloth, six inches wide, and bend it in a circle, so that when it is put on the trees it overlaps about an inch or two. We make this just as we would to put it on the tree, and when we get ready we just spread it apart, slip it on and, as it is stiff enough to stand alone all right, that is about all there is to it.

It would have to be a mighty deep snow here in Indiana, unless there were a crust on top, to give Br'er Rabbit a chance to gnaw above the twenty-four-inch mark.

We push it into the ground so the mice will not go under, and even the mischief-hunting pig must be contented to just look through, or rub off a coat of mud on it, which hurts nothing.

If the trees grow too fast or we get careless, we think it will unwrap, instead of cutting into the tree, and for larger trees or larger hogs it is possible that thirty-inch wire cloth cut in ten to fifteen inch strips would be better.

It is also possible that these protectors will partially, if not wholly, prevent sunscald. Taken all in all, I think it is by far the best tree-protector I have seen for the average farmer where he only sets out a few trees.

Most of the hardware dealers have this wire cloth; if they haven't, they will get it for you, or you might order it of one of the mail-order houses which advertise in this paper. Get the material, and make them yourself. We note that the Purdue Experiment Station uses these protectors.

OMER R. ABRAHAM.

Several Good Methods

There are two washes known to be quite effective against the attacks of rabbits and mice. Fall spraying of the commercial lime-sulphur solution, diluted one to ten, and used for the control of scale insects, aphids, and the like, is a repellent to quite a degree against rodents. Another wash is made as follows: Slake a peck of good stone-lime in soapy water, dilute this to a thin consistency, and add one-half gallon of crude carbolic acid, four pounds of sulphur and one gallon of soft soap. The trunks of the trees are painted with this in late fall.

Probably the most effective and certain preventive is by means of mechanical tree-protectors, for paper, wood veneering and wire screen, having a quarter-inch mesh, are the best known. Both tar-paper and the wood veneering should be taken off in late spring, as they may harbor injurious insects, such as woolly aphids, and, too, they do not allow a free circulation of air about the trunk of the tree. Where veneering can be obtained cheaply, it is to be preferred to the tar-paper. The wire screening may be left around the trunk without any danger throughout the year and is equally effective against rabbits and mice. On the other hand, the wire screen is more expensive. A piece two feet high by one foot long will cost about three cents, while a veneer protector can be bought usually for about half a cent.

In all events it is well to practise general orchard sanitation as a preventive means for these pests. Rubbish attracts rodents. A small mound of earth about the base of the tree is quite effective against mice, where the orchard is kept clean elsewhere.

A. J. ROGERS, JR.

Rabbits Don't Bother

I have tested many methods of protecting fruit-trees from rabbits, and have found the following remedy the most effective:

Make a thick whitewash of lime and water, and to every three gallons of the wash add one quart of fish-oil. Mix well, and apply freely to the trunks of the young trees with a medium-sized paint-brush.

I usually go over the trees the first of October and again in March, and have never lost a tree from girdling. D. B. PHILLIPS.



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Washington, D. C.

The Nation's Garden Spot—

THAT GREAT FRUIT AND TRUCK GROWING SECTION—
along the
Atlantic Coast Line RAILROAD

in Virginia, North and South Carolina, Georgia, Alabama and Florida, write to
WILBUR MCCOY, E. N. CLARK,
A. & I. Agt. for Florida, A. & I. Agt. for Virginia
Alabama, Georgia, and the Carolinas,
Jacksonville, Fla., Wilmington, N. C.

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The territory traversed by the Nashville, Chattanooga & St. Louis Railway is rich in natural resources, and its climatic conditions and the fertility of its soils offer unexcelled opportunities for the profitable production of grains, grasses, live stock and truck crops. Fertile and attractive farm lands may be had at very low prices. Write me at once for free descriptive literature.

H. F. Smith, Traffic Manager, Dept. S, Nashville, Tenn.
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Maryland Best in the Union

THIRTY FARMERS are invited to settle in the state of Maryland, where they will find a delightful and healthful climate, first-class markets for their products and plenty of land at reasonable prices. Maps and descriptive pamphlets will be sent free upon application to State Board of Immigration, Baltimore, Md.

Garden and Orchard

Celery for Winter

ALL our celery that is already fairly well blanched at the end of the open season is usually used up or put on the market in the fore part of the winter, from Thanksgiving to New Year's. It may be protected from freezing by suitable covering in the field, or taken up and packed closely together in trenches or in a root-cellar, or even some outbuilding where safe from frost and kept in the dark and with roots moist. I pack mine under the benches in an unheated (or but partially heated) part of my little greenhouse. For home use, a lot of stalks may be trimmed as for sale, and packed, wrapped in moist sphagnum moss, tightly in a box of suitable size, the box stood up so that the plants will stand upright. The top of box is left open so that just the tips of the leaves are exposed. An ordinary cool cellar is a good place for it.

Celery to be kept until midwinter or later must be more carefully handled. We do not fully blanch it before storing. I usually plow a furrow or two towards the rows from each side, then draw the soil toward the plants with the hoe, from underneath the leaves, so as to force a more upright, compact growth, and the plants are then ready to be taken up at the proper time for storage. The leaves at time of taking up should be perfectly dry and not frozen. Otherwise we put this job off as late as seems safe. I leave a part of the soil adhering to the roots, and trim off all the older and partially decayed outer leaves, then pack the plants, upright, on the bottom of a cool but frost-proof root-cellar, working sandy or mucky soil (if I can get it), or my ordinary loam, carefully between the plants so as to cover the roots and keep them covered with moist earth. The room should be kept entirely dark. For a somewhat milder climate, as, for instance, that of New Jersey, storage in outdoor trenches will answer first rate, and is practised by commercial growers. They usually shake all the soil off the roots and pack very closely. The trenches are dug about a foot in width and deep enough so that the tips of the leaves come about even with the surface of the ground. Drainage must be perfect so that no water will ever stand in the trenches. They are covered with A-shaped troughs of boards, and these with litter, coarse manure, etc., so as to keep out frost, and the celery will be safe from harm until time for marketing it. The plants usually blanch beautifully in cellar or trench storage. If you have a cellar that is suitable for keeping potatoes, roots, apples, etc., and have a spot to spare in a dark corner, you can try cellar storage for a hundred or two of your celery-plants for winter along these lines. You will enjoy the tender, brittle and sweet stalks, and be ready to have more of them another year. Give it a trial.

Preserving Grapes

FROM New York comes the question in regard to preserving grapes in their natural state.

There are a number of means employed to extend the life of fresh grapes. Among these are the sealing of the cut ends of the stems of the bunches with paraffin, then storing the bunches in paper bags or paste-board boxes, one bunch in a bag or box. These should be hung in a room where the temperature is dry and cool.

Another method is to place the bunches in dry cork or sawdust or bran, taking care to

have no bruised specimens among them. By this treatment they will dry out and shrivel considerably.

Another method is to clip a piece of the vine from three to six inches long below the bunch, remove all diseased berries and put the shoot in a bottle of water, set or hung at such an angle that the grapes will not touch the bottle. The storing-room should be dry and have a constant temperature of forty to forty-five degrees, if possible. Darkness, while not essential, is desirable for the storing-room. If the grapes are to be kept long, a tablespoonful of not too finely powdered charcoal should be put in each bottle. The bunches should be examined every week and all decaying berries removed. A few days after the stems have been inserted into the bottles, the water that has been taken up by the stems should be replaced. The claim is made that grapes can be kept for six to eight months by this treatment under perfect conditions.

Still another method that gives promise of being valuable in a commercial way is to immerse the fruit in a three-per-cent. solution of commercial formalin for about five minutes. After removing, place on netting or some open material to drain and dry. When treated in this way, before becoming fully ripe, and stored in a room where the temperature is dry and cool, the fruit is preserved for a considerably longer period than when left without treatment.

B. F. W. T.

Manures for Next Year's Garden

THE gardening season for 1911 is now over. I have again seen plenty of proof of the fact that we cannot get full crops and full returns without the freest use of manures. I have made up my mind to be even more lavish in covering the soil with manure for next year than ever. The suburban home gardener often finds it difficult and expensive to secure what manure he wants or should have for his garden. But from now on he should be on the lookout for chances to secure it. Sometimes a supply can be had from a near blacksmith shop, or from someone in the city or village who keeps a horse or horses, or a cow or cows, or poultry, or pigeons. In the late fall or during winter a team may be hired at a comparatively low rate, and manure be placed in your garden at not more than reasonable expense. It is up-hill work to raise good garden stuff without plenty of manure. By watchfulness we often find good chances to procure it. It is worth some effort.

What to Do with the Asparagus Bed

IT IS time to mow off the old stalks. Gather them and remove them from the patch before the seeds are shed. They may grow and fill the bed with little plants. It will do the bed no harm, but a lot of good, to cover it heavily with good old manure, more for food than for protection. A heavy dressing of fertilizer may be given in place of the manure, or as an addition to it. It is not easy to overfeed asparagus.

Song-Sparrow

THE song-sparrow is, beyond a doubt, the most versatile of our native sparrows; he has a "song" for every condition of our variable vernal season. Even the bright, warm days of winter will cause him to sing a few strains of music, thus displaying a happy heart.

It is his cheerful disposition that makes him the fine bird that he is, and not his feathers, for in dress he is just an ordinary sparrow; his back is streaked with black and brown; the under parts whitish, with streaked sides and breast, the black merging into a "spot" on the center of the latter.

In early spring he will be found about the farmstead as well as in orchard and field; at this season, too, he frequents



the town, selecting gardens with plenty of shrubbery or trees. As the nesting season draws near, he will return to the thickets, preferably those near water.

With their two or three broods of five or six birds each, in a season, the song-sparrows would soon overrun the land were it not for the large numbers of their natural enemies.

"Their food," according to the United States Department of Agriculture, "consists of animal matter, insects, with occasionally a spider or snail, thirty-four per cent., and vegetable matter, mostly seeds, sixty-six per cent. And much wild fruit is eaten in July and August, but this diet is largely abandoned when the weed-seed harvest is mature." H. W. WEISGERBER.

Plants Running Out?

A NEIGHBOR asked, "Does the strawberry-plant run out?" He said he had bought five thousand plants of several varieties, among them one thousand Crescent.

That all these varieties contained plants that bore small, worthless fruit, although showing like plant resemblance.

Our answer was that there is no more danger of the strawberry-plant running out, so far as to identity in kind is concerned, than there is of the Concord grape or the Baldwin apple running out where care is taken to keep it pure.

The fact is, his plants were either taken from old beds, or from beds of new plants grown from old bed plants, where thousands of seedlings spring up.

These seedlings always show deterioration in variety and often in habits of plant growth.

From plant appearance it is hard to detect the true from the seedling, but in the fruiting the difference is seen.

The practice of growing plants from old beds has become so common that it is difficult to get pure plants.

Not only is this true of the strawberry-plant, but the same evil results come from taking plants of the raspberry and blackberry from old plantations. Seedlings will spring up in these and ninety-nine per cent. will be inferior to the original in fruit.

We have the Iceberg White berry. Birds are very fond of them and scatter the seed all over the place. Being white, these seedlings are easily detected, and all of them show inferior fruit.

The only safe way with these fruits is to grow plants in new beds each year from plants known to be pure, and to grow the raspberry or blackberry from root-cuttings taken from pure plants. Digging plants promiscuously from old beds will not do if you wish genuine stock. We know this causes extra work, and in our rush to get so much done we take other plants and the result is failure. Nurserymen, perhaps, do these things, and incalculable harm comes to the public thereby. Why not return to right and safe methods of keeping the stock pure?
J. H. HAYNES.

Benefits from Sweet Corn

MY PRACTICE has been right along to plant a big patch, or patches, of sweet corn. We get the ears, and these are always in good demand at prices that insure double the profits from field-corn. We have the stalks, during late summer and fall to feed to our cows to help make milk. There isn't anything much better for that purpose. This fodder comes at a time when pastures are usually very short. The ears that were left on, including the larger nubbins, are broken off the stalks, and saved for fattening purposes. I used to fatten my pigs with such remnants. Not keeping that kind of stock now, I give the sweet corn to my ducks, capons, to hens or geese intended for early slaughter, and not only get fat fowls, but meat of superior quality. I never had sweeter pork than when made on sweet corn. The stalks, especially of the earlier varieties, are cut as wanted for feeding. No need of cutting them up in a cutting-box. Cattle will eat every portion of them at this time. The balance are cut and put in shocks and hauled for feeding as wanted. The ears and nubbins that are pulled off, however, must be spread out in a dry and airy room to cure. Corn that is too soft will easily spoil. It would be a good thing to put it on a kiln and thus expose it to dry heat. Seed-corn will need particular care. It must not be allowed to freeze while the least bit soft, nor exposed to killing heat in kiln-drying.

Winter Cold-Frame

COLD-FRAME plants are so much better than hotbed plants that it pays those interested in the garden to have a good one.

In constructing such, we use two frames instead of one. This gives greater protection to the plants in severe weather. The smaller frame is three and one-half feet wide and six and one-half feet long. The outer frame is one foot each way larger than the inner. This gives a six-inch space all around the inner frame, and this is filled with dry sawdust well packed. The larger frame is one foot deep, the inner, eight inches.

We use shallow frames, because the plants do not become spindling in growth. Where deep frames are used, the plants necessarily seek the light above and become unwieldy. A glass-covered sash is fitted air-tight on the inner frame. The outer frame is covered with a sash having oiled canvas over it, making it water-proof. In very cold weather a strip of carpet or other material is kept over the inner sash. On mild days the outer sash is removed to give light to the plants, and, if so that it is safe, the inner sash is raised to admit air.

We select a site having good exposure to the sun and free from heavy cold winds. If slightly rolling, so much the better. Our plants are grown in the open ground and transplanted when there is danger of freezing weather. The plant-bed contains the best soil obtainable and the under soil is well stirred to give the young plants chance for root-growth. If the frames are painted, they will last several years. J. H. HAYNES.

From 60

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GARDENING

By T. GREINER

The Fountain of Eternal Youth

SAYS Mephisto to Faust (according to Goethe): "The best means to make you young at a hundred years, believe me, is to manure the land, the produce of which you harvest, with your own hands." The advice to seek close touch with nature and work in open and pure air is worthy of coming from a better source and be given in good faith, rather than with a sneer. The other day I found our good and kind county judge in his home garden, a short trolley ride from his office in the court-house. It was the finest sample of intensive gardening that I have seen in a long time, and it was with justifiable pride and satisfaction that the judge, who is not a young man but feels young, told me of doing all the work in that good-sized garden with his own hands, and of the fresh vegetables he had in such abundance all season long and so much better than he could get in the markets. He has found his fountain of eternal youth, and I saw in this one of the reasons why he is justly noted for the clearness and common sense of his decisions when on the bench, and for his kindly and fatherly ways of dealing with first offenders that are brought before him for sentence.

Enormous Tops, but Little Root

I would like to know what use one could make of radish-tops. The much-mentioned Sakarajima radish, or Mammoth Japanese, is certainly a wonder so far as the production of leaves is concerned. Grown from seed sown August 1st, they beat any other radish in amount and dark, healthy color of leafage. What little root there is has about the flavor of the Black Spanish winter radish, but they seem to be more subject to worm attacks. Unless the tops can be used for greens, or for some other good purpose, it is, at least in my case, a waste of space and opportunity to plant the Sakarajima. One row of some good standard sort of winter radish, like California, or Russian Mammoth White, or even Black Spanish, is worth a hundred rows of the Japanese Monster Top.

Care of Stored Beets, Etc.

Mangels and other beets stored in an ordinary cellar are especially subject to deterioration by wilting. The top layers soon lose their brittleness and succulence, and then are of less value for cutting up and feeding to any kind of stock than when they are yet fresh. Storage in a regular outdoor root-cellar is far preferable. But we always want a good supply to have easily accessible, so we can feed them regularly and daily to our cows and to our fowls. The latter take quantities of them. I do not know of a better way to keep them fresh in the ordinary house cellar than by covering them carefully with a layer of sods cut, say, two inches thick, from an old pasture. In the spring these sods may be piled up outdoors, with alternate layers of stable manure, and thus left to decay, and if watered occasionally in a dry time with liquid manure, all the better. Later on the heap may be shoveled or spaded over a few times, and by fall will have made an excellent potting-soil, or soil for the greenhouse-bench.

Care of Other Stored Roots

Turnips are not so apt to wilt as beets. Winter radishes are particularly so, and carrots to some extent. The best way with winter radishes is to cover them with slightly moist sand, and keep them in low enough temperature that they will not start into growth. A light covering of old sacking (burlap) will keep carrots and other roots in good shape in ordinary cellar storage. If there is danger of their drying out too much, a little water may be sprinkled over the covering from time to time, not enough, however, that it will soak through and cause the carrots to rot.

Rhubarb for Winter

It is now time to dig up a few clumps of rhubarb to have them in reserve for winter forcing. This winter rhubarb is far more brittle and delicious than what we can grow in open air in its regular season. Leave plenty of soil on the clumps, and leave them outdoors under a shed or in some place where we can easily get at them later on, even after a deep snowfall. After the clumps have become frozen solid, they can be used for forcing at any time. A dark corner in a warm cellar is a good place. A spot three or four feet square will give you quite a number of messes during the winter. Pack the clumps in rather closely together, upon a layer of soil, and cover with soil to the depth of at least a few inches over the crowns, and then let them grow. If not dark enough, put a box around the bed, and cover it so as to exclude the light. Try half a dozen plants in this way, anyway.

Storage of Apples

A COLD-STORAGE plant means to most farmers a huge commercial affair with various uses, one of them being to prolong the life of fresh fruit, especially apples.

Undoubtedly there are many advantages in the commercial storage center, to which growers can ship their fruit, to be stored until they see fit to sell it. More ideal conditions of storage are attained in the big concern than are possible in the ordinary fruit-cellar.

A storage-house, properly managed, maintains a uniform low temperature of about thirty-two degrees. It has the proper degree of humidity, a point at which fruit will not shrivel, nor yet be liable to molds and mildews. It has a continuous circulation of air to all parts of the chamber, to insure an even refrigeration. Finally, it has constant change of air, in order to remove impure gases arising from decaying vegetable matter. The cold-storage plant of to-day usually does furnish these conditions, but nevertheless there are very great advantages in having a small storage of one's own.

The time that elapses between picking and storing fruit may be several weeks, if the fruit must be shipped to a distant storage. If the picking is done in warm weather, the delay in getting to the storage may be very disastrous, especially to early apples. If the grower had storage for the perishable summer and fall apples, the customary glutted market in August and September would disappear, and failure would certainly be turned to success.

To get the best results in keeping all varieties of apples, several points should be adhered to most rigidly:

1. Store only A No. 1 fruit. Allow no wormy, diseased, or bruised specimens to slip in.
2. Pick apples that are still hard, but that are fully developed in size and color.
3. Wrap in unprinted newspaper. If the cellar is apt to be either very dry or very moist, another wrapper of oiled paper should be wrapped over the newspaper.
4. Have fruit cool throughout the package before it enters the cool cellar. Usually the smaller and tighter the package is, the better will the fruit keep.

A very cheap and suitable cellar for storing apples can be made of concrete, preferably with a hollow wall. The walls should be as far as possible under the ground, so as to be naturally cooled by the earth. The cellar is cooled by ventilation, also. In warm weather usually the inlet and outlet valves are opened only at night, and in cool weather they may be opened during the day. In order to have the air somewhat tempered before entering the cellar, the inlet is placed seventy-five feet or more away from it, and connects with it by means of a tile pipe laid several feet below the surface of the ground. The inlet proper is at the top of a pipe standing perpendicularly eight or ten feet above ground. It consists of a revolving hood attached to the pipe. The wind controls this hood and creates a forced draft through the tile pipe into the cellar. The warm air passing through will be cooled, and much moisture of condensation will remain in the pipes, instead of entering the cellar. The outlet should be through the roof, and should be larger in cross-section than the inlet. With a little experience one can learn to operate the ventilator so as to secure an even low temperature at practically no cost.

A. J. ROGERS, JR.

Make a second and most thorough inspection of all fruit and vegetables before placing them in storage-pits or cellar-bins. The least abrasion of the skin on fruits will be rot later on, and a speck of rot at this time will mean an entirely ruined product in midwinter, to say nothing of the other products it may contaminate and spoil by coming in contact with them. Reject all of these undesirable products at once, and thus save handling them in a worse condition after you have gone to the trouble of storing them.

Of National Importance

Convention of National Grange, Columbus, Ohio, November 12-24, 1911

Farmers' Institute Workers' Convention, Columbus, Ohio, November 13-15, 1911

Second Conference of State Grange Executive Committees (Progressive State Granges), Columbus, Ohio, November 14-26, 1911

National Horse Show, New York City, November 18-25, 1911

American Road Congress, Richmond, Virginia, November 20-23, 1911

National Apple Show, Spokane, Washington, November 27-30, 1911

Horse Show, Chicago, Illinois, November 27-December 2, 1911

International Live Stock Exposition, Chicago, Illinois, December 2-9, 1911

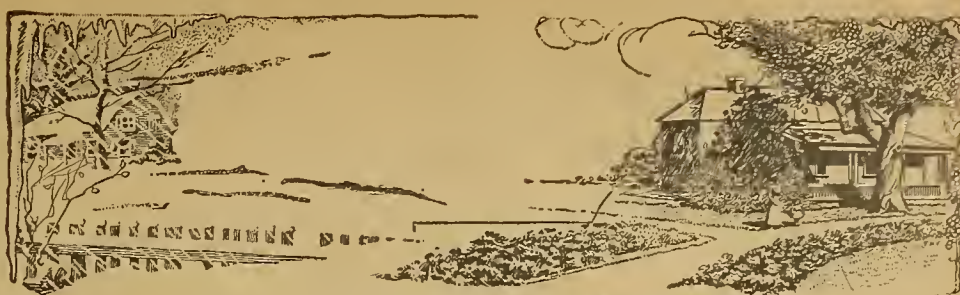
American Society of Equity, Chicago, Illinois, December 5, 1911

Poultry Show, New York City, December 5-9, 1911

The Gulf Coast Poultry Show, Victoria, Texas, December 6-9, 1911

National Mid-Winter Sheep Show, Omaha, Nebraska, December 13-16, 1911

Great Mid-West Poultry Show, Chicago, Illinois, December 14-19, 1911



No Cold in California Crops Pay for Your Farm

Are you dreading the approach of cold weather? Do you hate to see the time come when you will be shut in by the cold, sleet and snow? Do you realize how cold weather practically robs you of four or five months' earnings?

Would you like to get a new location where crops will grow all the year 'round? Would you like to make those lost four months count? Then go to California this winter.

The Santa Fe has no land to sell there, but we do want to see the country built up. We want the business of ten times as many people as are now located in the San Joaquin Valley. We wish to take in the settlers. We want to haul out their crops. Every additional prosperous family means more passengers and freight. You will see therefore why the Santa Fe created its Colonization Department and why we can afford to give you only the truth. We want ambitious people willing to work to help this land produce in its wonderful way.

The San Joaquin Valley is in the heart of wonderful Golden California—land of sunshine. It is 250 miles long and 100 miles wide. Only about 200,000 people live there now. Its farms are producing wonderful crops, and its people are contented and fast gaining independence and accumulating bank accounts. Ten times as many people would be equally prosperous.

There are many opportunities to acquire land, as the owners, too, are anxious for new settlers. The newcomer is welcomed and assisted by his neighbors. We will gladly put you in touch with the people of that land itself. We will give you the names of those who offer homes on the most liberal terms.

One particularly interesting proposition is a wonderful plan whereby half of your crops pay for your farm. A limited number of farms only are available under this plan, but they are most desirable land and situated in one of the finest counties of the San Joaquin Valley. The tracts are 40 acres and you agree to turn over one-half the gross proceeds of crops from 35 acres each year until the farm is fully paid for. Only 5 per cent. interest is required and a

reasonable first payment. You will be carried if you should have a crop failure.

Not many opportunities such as this are offered. Those who act quickly will get a San Joaquin Valley farm that will make them a competence.

We have not the space here to tell you much about the San Joaquin Valley. Enough to say only a few words about its most delightful climate, wealth producing soil and wonderful variety of crops.

January is like our June and so things grow all the time. June, July and August, of course, are warm, but it is dry, not enervating heat. The nights are cool and the heat is wanted to make money for everybody in the summer fruit ripening season.

The soil, rich, deep and fertile, under irrigation, produces abundant and varied crops. You can have something to market every month. Alfalfa grows several crops a year and eventually you may have a succession of fruit including prunes, apricots, melons, figs, oranges, lemons, grape-fruit, olives, grapes and raisins.

You ought to read about this country and then go see it. See it this winter while work is slack with you. You can go cheaply. The Santa Fe runs comfortable tourist sleeping cars in which the trip can be made at least expense. Full information about trains and fares will be gladly given.

Mail this coupon or write to-day. Get our literature about the San Joaquin Valley and our monthly land journal, "The Earth," for six months free. Let us put you in touch with the owners offering the wonderfully liberal half crop payment plan.

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Makes a neat, durable repair and quickly, too. Has a diamond point grooved needle, a hollow handle, plated metal parts, a shuttle, and a bobbin holding 24 yds. of best waxed linen thread. No extra tools needed. Can be carried in the pocket. Special discounts to agents. S. Perrine says "Sold 9 on way home with sample." W. Spenser writes "Sold 11 first 4 hours." Reg. price \$1.00. Complete sample with 1 large, 1 small, 1 curved needle, a shuttle, and a bobbin of thread sent postpaid for 60c. 2 for \$1.00. Get one, keep it a month or so, mend all your Harness, etc., and then if you are not satisfied return the Awl and we will refund your money. Send quick for sample and instructions.

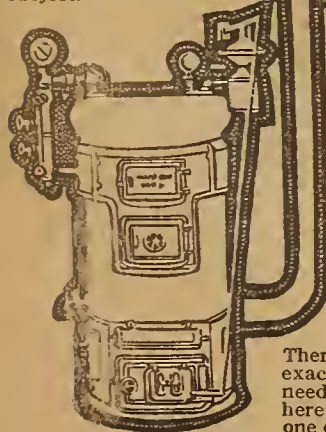
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It tells, in non-technical language, just what you ought to know about the various methods of heating houses. It tells how hot water heats and how steam heats and the difference between the two. It points out the shortcomings of hot air—in fact, covers the whole subject.



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Perfected Pointers from Practical Persons

Protects the Horse



To keep the horse from biting a sore, put a strong halter and a strong girth, or belly-band, on the horse, and take a pole about one and one-half inches in diameter, long enough to go from halter to girth, and with a little crook to it, so it will not rub his breast. Fasten a strong string to each end of the stick. Fasten one end to the halter and the other end to the girth between the fore legs. With this device the animal can be pastured with the assurance that he can't get to his sore. JIM CARR.

Carries Eggs to Market



HERE is a device for carrying eggs where they are delivered to customers in the city. It is made of ordinary plastering lath planed smooth and nailed together with small nails. Two strips are nailed together in V-shape for each corner. The bottom is made of thin board nailed to narrow strips on the inside of each side. The bail is made of heavy wire with a suitable piece of wood as a handle. The carrier can be made to hold any number of cartons one desires to carry. (Cartons hold one dozen each.) Pile the cartons up and measure them to get the inside measurements of carrier. I have one holding thirty dozen and another holding twenty-four dozen. A. J. MAGEE.

For a Row of Stanchions

WELD together fairly heavy wagon-tires the length of the row of stanchions. At intervals, the distances between each stanchion, rivet crosspieces cut from a tire or band iron, about three inches by one inch. A similar piece of iron, though preferably heavier, is fastened by rivets at the point where the lever is wanted for manipulating the contrivance. The lever should be about two feet in length, bolted at the bottom to an upright between the stanchions, giving good play. About six inches from the bottom there should be another hole through which a bolt may be placed, connecting it to the crosspiece before mentioned, which is



bent downward in position on the opposite side from the stubs which move the stanchions. To facilitate ease of operation, a short piece may connect the lever with the crosspiece. In the free end of the lever a hole may be forged in which to insert cords, operated through pulleys, with which to close

the stanchions and to draw the attachment into position again. (The attachment should be placed in position under the crown board of the stanchions and supported by wooden pins or nails.) A pin placed behind the lever will make the catch unnecessary, if the operator wishes to open all at once. This attachment is simple, inexpensive and efficient.

Vermin-Proof Chicken-Roost

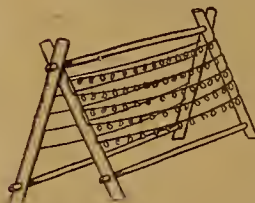
AFTER having my fowls tortured at night by vermin which crawled from their hiding-places in the walls, I devised the following plan for a roost which I have found gives perfect satisfaction. It is as follows:

For a roost of a given number of poles, have twice as many iron rings (about five inches in diameter) made at a blacksmith shop. Then stretch a large wire (A) about eight inches from the wall on each side and about four inches lower than you wish the top of the roost to be. These wires should be passed through small holes bored in the walls at each end of the house, stretched good and tight, and fastened on the outside.

Then suspend the rings (RRR) from the rafters by means of wires (BBB) so that they will barely touch the wire A, then make the rings (RRR) secure to the wire A by means of small wires wrapped around each ring and the wire A. After a similar structure has been made on the other side, the arrangement is ready for the poles, which should be smooth saplings from three to four inches in diameter and cut nine inches shorter than width of the house, so that they may be easily taken in and out of the rings.

Besides being vermin-proof, this roost has the advantage of being easily constructed and sanitary from the fact that the droppings do not have to be fastened to the wall, or other support which would catch the droppings. MRS. I. L. CHERRY.

Apple-Drying Horse



IN MAKING this horse, go to the woods and get two poles about six feet long and three inches thick. Split these and you have the legs. Get one pole the desired length of the horse and about one inch in diameter. This is for the top rod. Two others, the same size, make a connection between the legs; holes being bored in the uprights, shaved clean of the bark, and notches cut in the uprights to hang the strings in.

I find this method superior to the old, as the strings are in a horizontal position and dry away from each other, and thereby lessen the liability to rot or mold.

The garret makes an ideal place to dry the apples, as it is not only free from bugs and insects, but is away from the dust and dirt that is sure to be floating in the air, if the house is situated near the road. SHERMAN SLOTER.

A Barn Cabinet



THERE is little excuse for any farmer not having a sufficiency of home-made handy devices in which to store various articles and save labor. Especially is this true when such can be constructed out of dry-goods or grocery boxes, and that is what may be said of the cabinet shown in the illustration. It can be made any size desired, and if put together right will be practically mouse and rat proof. The drawers are convenient in which to put robes, blankets, and the like, and the shelves, or compartments, in the upper arrangement are convenient for holding brushes, nails, hammers, wrenches and other small tools. It is a handy place to store small seeds, condition powders, liniments and medicines for farm animals. ALBERT BAKER.

Cement Feeding-Floor



THIS feeding-floor, ten by forty feet, is made entirely of cement, with the feeding-trough (B) around two sides, or three sides if desired. It affords an excellent place for fattening hogs and quickly pays for itself in the saving of feed. A great feature of this floor is the sloping board (A), on which the feed is poured, saving the trouble of getting among the hogs to feed. The ends of the trough are left open so as to be easily cleaned, and the floor is built slightly sloping. GROVER MILLER.

In order to prevent the outlet of a tile-drain from freezing, crumbling, and later clogging the opening, use a sewer-pipe, one size larger than the tiling, to make the outlet.

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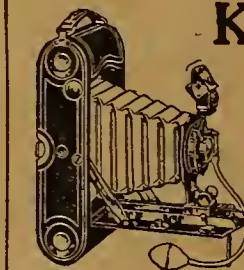
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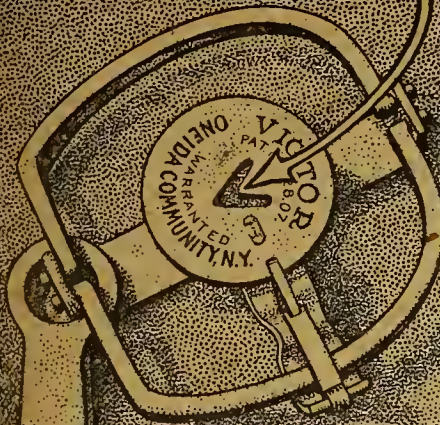
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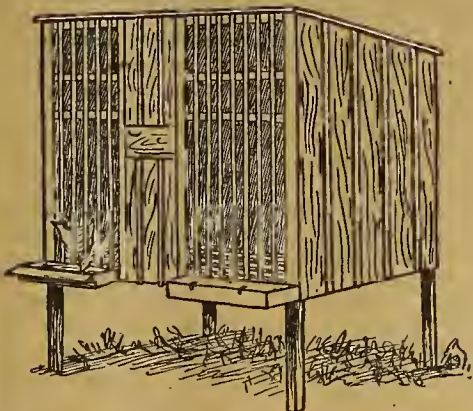
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Fattening-Coop

THIS fattening-coop can be made any size desired. It has a slat front, with the slats far enough apart to allow the chickens to eat and drink out of the little troughs. The floor is also made of slats, which makes the coop sanitary. The little troughs are



made with lids, thus protecting the food and water from dirt and dust. The roof is sloping, to allow the water to run off of it in rainy weather. A box of gravel or oyster-shell should be kept in the coop. This is an excellent way to fatten chickens.

D. D. LAWSON.

Pigeon-House Kink



THIS trap is for use at the holes where the pigeons enter the house. As will be seen, it allows pigeons on the outside to enter, while those on the inside must stay there. It is made of heavy wire and fastened

loosely over the hole by two double tacks. This trap will save much trouble in shutting up pigeons, for, instead of going out in the dark to close the entrance holes, the traps may be dropped in the afternoon, and the pigeons will enter, but will be unable to get out.

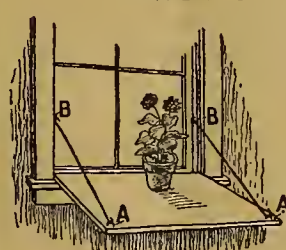
ABNER B. SHAW.

To Recut Old Files

DISSOLVE four ounces of saleratus in one quart of water, and boil the files in it for half an hour; then remove, wash and dry them. Now have ready, in a glass or stone vessel, one quart of rain-water, into which you have slowly added four ounces of best sulphuric acid, and keep the proportions for any amount used. Immerse the files in this preparation from six to twelve hours, according to fineness or coarseness of the files; then remove, wash them clean, dry quickly and put a little sweet oil on them to cover the surface. If the files are coarse, they will need to remain in about twelve hours, but for fine files from six to eight hours is sufficient. Files may be recut three times by this process. The liquid may be used at different times if required. Keep it away from children, as it is poison.

ELMER R. MERROW.

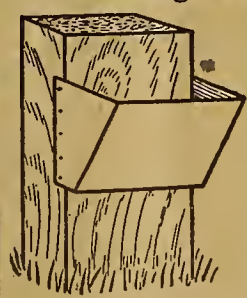
Window-Shelf



HERE is a good way to make a flower-shelf in front of one's windows. Take a piece of board any size desired. Take four staples, and nail two of them in the board at each end, as shown at AA. Then put this on your window, and eight inches above this, on both sides of the window, nail a staple (BB). Then get some wire, and cut it into two pieces so that each piece is one foot long, and hook this in the staples. After it has been hooked in, it can be painted any color desired.

MISS EMMA WIESE.

Slaughtering Block

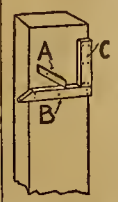


THE following method of killing fowls is a neat and proper one: Set a square post about two feet in the ground and about two and one-half or three feet (or as desired) above ground. After clipping the fowl's head off (for this I prefer a corn-cutter or knife to a hatchet or ax),

place the fowl in the box, where it will bleed freely. This method, to my notion, is more humane than to have them flopping about on the ground.

J. E. RAISER.

Safety for the Gate



A SIMPLE wood gate-latch is often much needed on the farm. Here is one: Take a piece of wood (A) about three inches long, one inch wide and one inch thick; a piece (B) one foot long, two inches wide, one inch thick, and a piece (C) one foot long, two inches wide and one inch thick. Nail these pieces as shown in sketch so when the gate is thrown shut it will lift the latch and drop down when the gate is closed. The gate has a projecting piece which slides on B as it goes in. C is the bump which the gate meets. When the gate is to be opened, A is raised, which lets the gate out again.

CHAS. A. MCCARTHY.

A Storm Door

LIVING twenty-five miles from the nearest Lumber-mill, and requiring a storm or outside door for the kitchen door, I hit upon this plan of providing one: I took our summer screen door, and covered it from top to bottom with linoleum, tacking it neatly in place on the outside of the door, which protects the wire screening. It is first rate for keeping out the cold, too. Now I have the one door which keeps out flies in summer and cold in winter. Oil-cloth or matting could be used if linoleum is not available.

MRS. L. C. FLEMING.

Chicken-Feeder

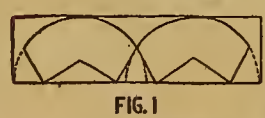


FIG. 1

HERE is a feed-trough for hens or chickens which is very handy and easy to make: A seven-eighths-inch board, twenty-two by six inches, will make both ends; note Fig. 1. The four strips of boards, three and one-half inches wide, can be any length desired. I make mine two feet for chicks and four feet for hens. The top strip is one and one-half by seven-eighths inches, and makes a good handle to carry it by. Hens can eat from entire side of the trough without standing inside.

JAMES E. KAY.

Pinch-Bar



ANYONE that is handy with tools, or any blacksmith, can make this bar. Take a bar of tool-steel or an old car-spring, and straighten out. Cut off two and one-half feet for the bar. C is a nail-claw, with V-shaped slot (A) two inches long and three-eighths inch wide at tip. It is four inches from C across to D. H is crowbar one and one-fourth inches at point. I have used this bar to pull nails, spikes, bolts, staples and to take off old shingles.

To temper, heat to cherry red to four inches from end, put in water, draw out quickly to one inch of end till it barely dries, then polish quickly; when the straw color turns to blue, cool off. I. B. GILMORE.

Belt Adhesive

IF YOU are troubled with slipping belt or if you run your belts tight (a tight belt should never be run, it wears the bearings too fast), loosen your belt, pour some tar, coal-tar or other thick substance on belt while engine is running, spread it smoothly, then sprinkle belt with a good coat of Portland or other good cement or ashes. This will make the belt stick to pulley.

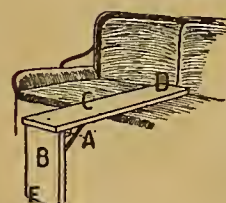
RAY MALCOLM.

To Shield Young Plants

THE best method to shield any kind of little plants is to get as many paper trays as you can, lard trays will do, and lay the trays sideways of the rows. Mash the ends in the ground, and the trays will protect plants in cold or hot weather. I hope this method will help someone to raise better plants.

W. D. WOMBLE.

The Third Seat



FINDING the third seat which is sold in the stores not very satisfactory, I made a seat of boards about six inches wide, with a block two inches wide in the corner (A) and a brace of iron from B to C. The seat slips into the buggy seat, between the two persons at the ends. It is easy for the third person and takes up very little room. D goes against the back of the seat and E on the floor of the buggy. The seat may be upholstered if one wishes.

W. W. MORE.

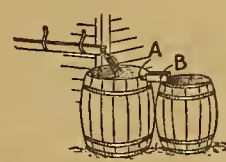
Why Not Try It?



IN ORDER to save handling the silage in the silo, fasten a cone made of tin or sheet iron to the end of blower pipe above the center of the silo, the cone to be about four or six inches larger than the pipe in diameter, and fastened to the pipe by iron straps long enough to allow free passage of silage. In operation this device will deflect all the silage to the outer wall, and the handling of silage will be almost unnecessary, as the center of the silo will always be the lowest in filling.

FRED S. SUMMER.

For Rainy Weather



SECURE two barrels, one not quite so large as the other. Cut a stave off about two inches (A), then get a piece of tin (a can will do) and nail in the barrel, which will form a square trough (B). Then place the larger barrel under your eave trough and the other under the barrel trough, and when the first is full it will run to the second. One could have three barrels as well as two.

J. M. HAMBLIN.

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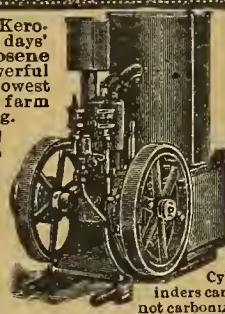
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Poultry-Raising

The Poultry-House Puzzle

THERE are so many types of poultry-houses that one who contemplates building is in a dilemma. Shall it be a double roof or a single roof, an open-front house or a closed building? Shall it have a dirt or wooden floor? All these and many other questions confront the novice.

Briefly, we will endeavor to describe several styles that have proved successful by many years of service.

The closed house may be built any size or shape desired, with double or single roof. These houses may or may not have a wooden floor, but the essential thing to be remembered is that they are closed on all sides, and fitted, of course, with windows and a door. This type is usually covered with a stout building-paper, shingled or clapboarded.

Everything is done to make the house as warm as possible, especially during the night. In the daytime windows may be raised and door may be opened. Such houses are all right for cold climates, if due precaution is taken to ventilate during the night as well as during the day.

Open-front scratching-sheds which are attached to closed buildings allow the fowls to exercise in the fresh air and make closed buildings more tolerable for keeping poultry.

The shed roof is preferred by many for the reason that it is less expensive and allows the biggest surface to face the sun. The double roof is preferred by others for the reason that it allows a greater air space overhead, and such buildings are claimed to be warmer and can be more easily ventilated by apertures in the roof.

The open-front house is built also in many styles. The idea originated by reverting to the natural houses of birds in a wild state, the partridge, for instance. It was observed that fresh air did not injure wild fowls, then why should it injure domestic fowls? Such a house is built after the plan of a closed building in every respect, except the front, which should face south and be left open except for an inch-mesh wire netting to guard against intruders and keep the fowls from the snow in winter.

There are open-front houses used all over our local region here in southern New Hampshire, all built after the same plan, that have been in use for over a quarter of a century. They are A-shaped with all sides wind and storm proof except the south side. This is covered with netting. Each house is fitted with a tight double-boarded floor. The capacity of each house is a dozen fowls. On one plant alone, which is the largest in the state, there are over seven hundred of these houses. Summer and winter, sunshine and storm, the fowls live comfortably in such buildings. For twenty-five years this plant has been in successful operation, so the idea of open-front houses is not a new or an untried one.

If one is keeping lightly feathered breeds, the closed house with open-front scratching-sheds is to be recommended. If one keeps heavily feathered varieties, no better house

can be built than one with an open front. The reason is this: An open-front house not only allows the largest amount of fresh air and sunshine, but it approaches natural conditions and thus is conducive to the best health of the flock.

On dull, cloudy days it is advisable to drop a curtain, which may be of heavy muslin or canvas, over the open front.

At the rear of the open-front houses the roosts are placed, and curtains may be lowered in front of them during the severe nights. Care must be taken that a chance be given for the impure air to escape above the top of the curtain.

Whatever style the house may be, let it conform to the essential requirements of the fowls. Indoor conditions must always as far as possible approach outdoor conditions. It is my opinion that a house with a dirt floor raised at least a foot higher than the level outside, which admits of the most fresh air without drafts, and an abundance of sunshine, that is kept dry and clean and sweet, and that gives room for exercise, is the house to build, no matter what the architecture.

A. G. SYMONDS.

Preparing Turkeys for Market

THE custom of serving the turkey in the American home as the nucleus of the Christmas feast is linked with the romantic days when the red man roamed Virginia. The turkey is a native of America and, like the Indian and buffalo, in their wild state cannot stand civilization, and in their domestic state will only thrive under certain conditions. The industry has been annihilated in New England and ruined in many parts of the West by the disease commonly called blackhead, and the section to-day freest from the ravages of that terrible disease is the mountainous South. People who are so fortunate to possess the experience and right surroundings will find it profitable in the future to raise them.

To dress them so they will show the golden yellow tinged with pinkish cream and command the premium prices on the eastern city markets, we keep them free from food for twelve hours; then hang them up to pick, then lock their wings by bringing one over the other and catching the tip of the upper wing over the tip of the lower. Then we quickly thrust a keen knife down the throat and quickly draw it out so as to sever the



Poultry as a Crop in Rotation

I CAN always make more out of my market eggs during the month of August than I can in January. In the first place, the price is almost always as good and sometimes actually higher in the late summer than mid-winter. The cost of production in August is also much less and the output very nearly equal. All this is not the result of any high-pressure "system," but simply getting back to nature and working the poultry as a crop in rotation. In fact, a little forethought and planning enables me to use land for my poultry and crop it at the same time.

My favorite rotation starts with winter wheat. This is sown some time in September on well-prepared old ground, and the seed is drilled in. I space the rows ten inches apart, and then when spring comes the hens and chickens can roam through it without injuring the growth. By the time the early-hatched chicks are ready to go on free range the wheat is usually about a foot high, and affords perfect protection from the hawks. I have seen these pirates sailing back and forth over my wheat-field time after time, and yet out of over nine hundred chicks last year I did not know of their getting but one.

As soon as the wheat gets past the milk stage, the harvest begins. Hens and chickens sail into it with a vengeance and seem to enjoy every minute of the day. Partly for the sake of having every possible layer at work during the harvest, I give every hen that goes broody before July 1st a clutch of eggs. That brings their vacation when the egg market is glutted and puts them to work again on a rapidly rising market. Of course, on the farm it is not easy to keep accurate accounts, but one year I fenced off one sixth of an acre of wheat just to get some idea of the results. About twenty hens had the run of it, and during the harvest I fed them nothing but beef-scraps. When the wheat was all gone, I figured it up, and they had laid just fifteen dollars' worth of eggs while cleaning it up. Considering the labor involved, I can't make anything else pay nearly so well. If I could stretch the harvest through a whole year, it would be better than a gold-mine.

Next to wheat, corn is my standby. I only keep one cow, so the problem of getting a legume into my rotation without shutting off the poultry from the land bothered me for quite a while. Finally I struck a combination that works splendidly. In sowing the wheat, I put in about ten per cent, by measure, of hairy vetch. This doesn't appear much until after the wheat has headed and begun to ripen. Then the clinging vines come on with a rush, climb all over the wheat, and pull the heads down where the poultry can shell them without a bit of trouble. In due time the vetch goes to seed, and the operations of the hens serve to scatter and work the same into the soil. It sprouts with the first fall rain, furnishes green food until snow flies, and, if not fed off too closely, makes a fine growth for green manuring the following spring. Plowing under the vetch, I plant corn, and by using an early-maturing flint get it off in plenty of time to sow wheat again. The late-hatched chicks have the run of the corn-field after the crop is well started, and that combination seems ideal, too. Best of all, the land keeps improving every year, and the limit is nowhere in sight. C. M. GALLUP.

Sanitary Colony House

WHERE colony houses are used with a capacity of fifty hens more or less, I find the following plans are very satisfactory for the convenient and cleanly disposition of the droppings so necessary during the summer and fall:

Have the roosts all on a level, at about the height of the back of the house, say about five feet. Have a sloping floor built under the roosts at a height of about four feet in front and slanting down to about a foot from the ground behind. This will give a good, steep pitch. Now have a door about two and a half feet wide, with the hinges at the top, so the door can be swung up and fastened out of the way with a hook.

Then make a shallow trough or box extending the full width of this so-called floor and under the back of it.

With a wide scraper, such as is used in cleaning out horse-stables, it is only a minute's work to scrape down the droppings to be carted away.

This removes a very disagreeable job and you will keep the hens freer from lice and disease by it. WM. J. COOPER.

Teach the boys how to use game-traps and capture the numerous pests about the farm that prey on the poultry. It will not only save the poultry, but the furs from the animals will furnish the boys with a neat sum of money.

Before these autumn days are gone, gather a good quantity of fallen leaves and store them away in the barn. Keep them where they can be stirred with a fork from time to time to prevent mildew and mold. Then use them liberally on the floors of the poultry-houses during the winter. Chickens seem to prefer scratching in leaves to any other kind of litter.

jugular vein. Then we quickly plunge the knife up through the roof of the mouth into the brain and, while the knife is in contact with the brain, we give it a slight twist so as to paralyze the turkey and make it loosen its grip on its feathers. We then quickly remove the feathers, and when picked we catch the turkey by the feet with head near the floor and give them a quick jerk so as to throw out the blood that has accumulated in the throat. We then hang them up to cool.

In packing, we prefer boxes holding twenty turkeys. The boxes should be new and neat and lined with strong paper, and each turkey should be wrapped with a sheet of parchment paper.

In bluegrass-fields fringed with woodlands the turkey finds the right forage for producing the highest flavored flesh. The ideal turkey-producing territory is the green slopes and the sun-kissed hills of the South.

GEORGE SIXEAS.

Of all solutions for paralyzing mites, the most effective we ever have found is simple kerosene, with a tablespoonful of crude carbolic acid added to each half-pint. Apply to the roosts, cracks and nests in the poultry-house with a small brush or oil-can.

Better have a good basket for the special purpose of collecting eggs. Aprons and old hats may serve this purpose for a time, but when they happen to give way and let a nice lot of eggs smash on the ground, it partly explains our annual egg-shortage.

Plenty of light in the poultry-house to encourage scratching in the litter is a necessity if the best egg-production is desired.



N. M. RUTHSTEIN
The Steel Shoe Man

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The FARMERS' LOBBY.

DRIFTING through the corridors of the Capitol one day last spring, I encountered the Hon. Victor Murdock of Kansas. Vic had a big idea in his system, and was bent on telling me about it. We planted ourselves in capacious chairs in the members' lobby, and he opened up.

Vic is always interesting, often convincing. But he wasn't convincing that day. He was telling me about the recall being the real, great, big, telling issue before the country; and the part he was excited about was the recall of the judiciary. He insisted that while the people wanted initiative, referendum and recall, and were going to get 'em, they especially needed and wanted the recall of the judiciary.

Being a sane, normal person, I told Vic he had bats in his garret. The people, I was willing to agree, ought to have the whole direct-legislation and direct-responsibility program; but I didn't believe they wanted the recall of the judiciary. I insisted that the superstition about the sacredness of the judiciary had worked so long that folks wouldn't soon get over the idea that a judge was a superior being.

Some Men are Infallible

"**M**ost folks," I said, "honestly feel—they don't believe, they just feel—that a man may to-day be human, fallible, liable to error, prone to all those weaknesses to which flesh is heir; but to-morrow, by virtue of election or appointment to judicial station, the same man is metamorphosed into a superman, infallible, beyond the region of any save academic error, fortified against all weaknesses and frailties. The people will not stand for the recall of judges."

Which was my honest opinion. I didn't agree with the people, but I guessed they felt that way.

"Well, you wait till they get a chance to pass on it," he said. "They want the recall more than the referendum and initiative, and they want the recall of the judiciary more than of administrative and legislative officers." Whereat I hooted anew.

Herewith my abject apologies to the Hon. Vic. He knew. California has given him the verdict.

The last figures I recollect showed that California's election on constitutional amendments had given a majority of just about three to one for initiative and referendum, and a little *larger* majority for the recall. The only real fight that was attempted was made against the recall. It was the same old argument about the danger of recalling judges—having popular clamor decide law cases, and so on. President Taft was extensively quoted against it. His argument, in the Arizona-New Mexico veto, against recalling judges, was used everywhere, and the California progressives generally thought it was written quite as much for its effect in California as for the immediate purpose of influencing Congress in the statehood matter.

It appears, then, that the recall, despite that all the fight was centered on it, won by a little larger majority than the associated propositions looking to direct legislation. How is it to be explained? Absolutely, on no other ground than that the Hon. Vic was right: the people wanted it, knew they wanted it, and voted for it when they got the chance.

California Politics Interesting

IF YOU don't think that California election has got the politicians excited, you ought to come down here for a few days, and hear 'em talk. The very day of the election, Fremont Older, editor of the *San Francisco Bulletin*, was in town. He had led the newspaper fight for the amendments, as he has led all the progressive fights in the Golden State for several years—and won them, too.

"The initiative and referendum will carry by more than two to one," he said, "and the recall is safe, but not by so big a majority."

From which you may note that a seasoned veteran of the California fight, fresh from the battle-ground, likewise mistook the temper of the people. Mr. Older confidently believed that the fight on the recall of judges would cut down the majority for that proposition considerably under that for the others.

Commonest of all the expressions among public men is the declaration that the California result makes it impossible for either party next year to be a Tory party.

We are going some, these times. The Populists first wrote initiative and referendum into a national plat-

A Wrong Representation

By Judson C. Welliver

form. We were all amused—wondered what it was about. Then the Bryan Democrats lined up for it. Now look at us!

Maine, Oregon, South Dakota, California, all sturdily Republican states, have written it into their constitutions. Oklahoma and Missouri, traditionally Democratic, have come in. Something like 150 cities, big, medium and little, have adopted the commission plan of city government with these trimmings on it. Six states, 150 cities and about 15,000,000 people are already committed to this populism in either their state or city government, or both!

It is high time for all the people to be considering what it's all about. It reflects, of course, a deep-seated disaffection with the results that have been produced by the old representative system of legislation. For a good many years people have been seeing that their representatives didn't work hard enough at representing. They found lobbyists, bosses, corporation agents, running the business of law-making. They saw the experiment in direct legislation tried in the pioneer states; and they liked the results. California sounds the first strong note of response.

Just what has got wrong with the old representative system of making and administering laws can be illustrated by using the national government as the dog in the vivisection process. Congress was to make laws, the President to execute, the courts to interpret. But Congress was divided. The Senate was originally supposed to be the least powerful and important branch. It soon became the overshadowing one, by reason of its share in the patronage power, its participation in making treaties, its longer term of service, its representation of the states in their sovereign capacities and, finally, the fact that it was smaller, more compact and manageable than the House. The lobbyists developed their art to the highest perfection in both branches.

The People Will Do Things

ALL this made it harder to secure from Congress a fair representation of the public's purposes. Add to this the increasing power of the President, through his control of patronage and his party leadership, and it is realized how certainly the President has grown into a sort of boss of Congress, and the Big Stick has become the emblem of executive authority over Congress—all of it usurpation.

Then, while the President has been inevitably seizing legislative authority on one side, the Supreme Court has been filing it down on the other side. Congress has looked littler and littler, in the plan of things, decade after decade.

The people realized all this, vaguely at first, more acutely as time passed. Then along came the proposition to adopt the initiative and referendum: to get the direct drive of public will on the crank-shaft of the big legislative machine.

That is what initiative and referendum means. The people will be able to do things for themselves, if their legislatures will not do them. It works simply enough. California has just had an initiative-and-referendum experience. The legislature initiated these various constitutional amendments, and referred them to the popular referendum that finally has to pass on all changes of constitutions. The people adopted them.

Applying the plan to legislation, we will have, first, the popular initiative. If the people want a given law, and their legislature will not pass it, a petition of a fixed percentage of the voters will require the submission of that act to the referendum. A majority vote makes it law.

Oregon's plan, the model other states are now taking up, provides that a new law shall not take effect within a certain period. In that time a movement may be initiated to refer that act to the people. If a petition is secured, signed by the necessary percentage of voters, the law's effectiveness is suspended, an election is called, and the people vote on whether that law shall be endorsed or rejected. A majority affirms the legislature's act, or rejects it.

The recall is simply a plan by which the people may change their minds about electing a man to office. It is provided for in most of the charters of commission-

governed cities. Suppose a town elects a mayor on the understanding that he favors a "dry" burg. Being elected, he proceeds to open the town, lets the saloons run all night, and generally violates his pledges. The opposition circulates a recall petition, which commonly requires the signatures of twenty-five per cent. of the voters. It demands that an election be called forthwith, to fill the office of mayor. The necessary signatures being produced, the election has to be called. The objectionable mayor is a candidate, and others may run against him. The election decides, by plurality vote, whether the mayor stays in or an insurgent takes his place.

Projected into the realm of state affairs, the same plan would apply to state officers. A man would be elected, practically, "for two years or during good behavior"—the people to judge whether the behavior was good or bad.

The commonest objection to this system is that the initiative and referendum take all business away from the legislature, and the people would become the legislature; that ignorance would dominate at the polls, and "fool laws" would be enacted every few minutes, resulting in chaos. How about that?

What the Swiss Did

THE Swiss republic borrowed its constitution from the United States in 1848, and in 1874 amended it to include the initiative and referendum. From 1874 to 1905 about two hundred and fifty general acts were passed by the Swiss parliament. Thirty of them were voted on under the referendum, and twenty of these were rejected. That is, eight per cent. of the laws passed by the parliament were repealed by the referendum. It doesn't look like a very serious case of chaos. Let me put it in another way: In those twenty-one years, thirty acts of parliament were submitted to the referendum of Swiss voters.

Compare that with the fact that only recently twenty-three constitutional amendments were voted on by the people of California, under *their* referendum. You can't but admit that our system gives the people quite a good deal to think about, at times. The people of California, and of all other states, must finally approve amendments to their constitutions. That is the referendum, pure and simple. We have had it ever since we have had the present government. Nobody has been worried about it. It hasn't produced any noticeable chaos. When a constitutional amendment is submitted to them, the people think it over, and vote their conclusions. That is just exactly what they would do under the referendum for legislation. There isn't a trifle of difference. The most important objection raised by the constitutional sharps is that it destroys the *representative* character of our government. They say that it is absolutely necessary for all legislation to be done through delegated representatives; to do it directly is a violation of the basic purposes of the constitution. Apparently the people of California didn't think very highly of that objection. I guess most people don't.

The Bosh About the Recall

ONE wide-spread notion is that, if we had the recall, cranks would be chasing around all the time, circulating petitions to recall some official they didn't like. That seems worth looking into. It might be better to be misgoverned than to spend all our time holding elections, first to get men in, and then to fire 'em out.

Inquiry into the hard, harsh, unfeeling statistics knocks this argument into the midday hours of February 30th, next. It appears that the recall has been invoked just five times in all the experience of the one hundred and fifty cities that have the commission form of government including the recall. Seattle recalled a mayor. Dallas recalled a school official. Los Angeles started to recall a mayor, but he resigned in time to save himself being voted on. The other cases I don't recollect. But the actual experience shows that the chance of the recall being invoked is about as good as that of having Halley's comet hit you.

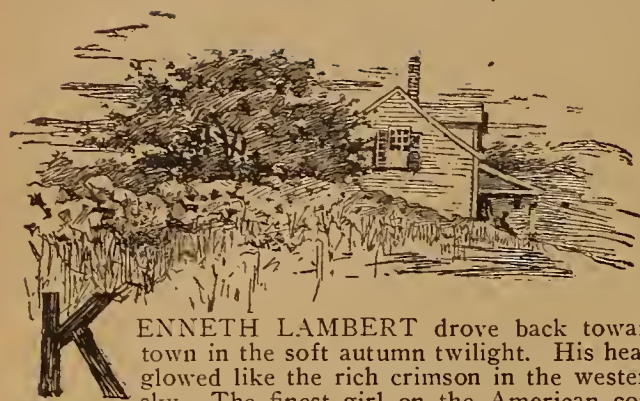
The recall works without working. So do the initiative and referendum. That's the beautiful thing about them. Everything induces the public officer to keep his ear to the ground. It may be an undignified position, but it is just the one a public officer ought to occupy.

We may like these aggressive measures for putting more power into the hands of the people, or we may fear them. The fact remains that they are coming.

Broken Fragments

And How a Farm Helped to Gather Them Up

By William H. Hamby



KENNETH LAMBERT drove back toward town in the soft autumn twilight. His heart glowed like the rich crimson in the western sky. The finest girl on the American continent—or any other—had promised just an hour before to become his wife.

"I'm so glad," mused Kenneth happily, "that she is a farm girl. I've always wanted to be a farmer, and it will be such a help to have a wife who was raised on a farm."

In the same twilight Catha Martin sat on the west porch of the farmhouse and watched the tender, fading light. Her face was still suffused with blood, her heart still beat with that strange new joy.

"I'm so glad," she mused rapturously, "that he is a town man. I've always wanted to live in town."

Now when two people who expect to be tied together begin to build air-castles on different plots of air, there is pretty sure to be a clash, and those air-castles will come tumbling down with a crash like an explosion in a glass factory.

The clash came the very next Wednesday evening. For, of course, the second time two engaged people have an hour to themselves they begin to talk about their future plans.

"I'll be like a bird out of a cage," he said gleefully. "I've always lived in cities and towns shut up in an office, and I always hated it. I want to get out of doors; I love to watch things grow, and I love the country. Won't it be fine when we have a little farm?"

"Farm?" It escaped from her lips sharply. He saw she was agitated.

"Why, yes, Catha." He checked himself in surprise. "Don't you want to live on a farm?"

"No, I don't," very positively. "I've had enough of it." Catha's father was an old-fashioned farmer who believed in much work and very little play for the boys and girls of his family. The principal thing was work, and Catha was becoming somewhat weary of a repetition of the many difficult farm tasks.

"Why, Catha," said Kenneth in hurt surprise, "you've heard me talk often of how I loved the farm."

"Oh, yes," she said, "but I didn't know you really wanted to live on it—I thought you were just talking that way because I lived on a farm."

"Why, girl," he urged, "there is very little chance for a fellow to get ahead in town. There I have been secretary for three years for that building company, and I get only seventy-five dollars a month. How far would that go in supporting a wife—and getting ahead?"

"We could get along on that fine," said Catha. As her father had thought that the women-folk ought to dress well enough on the egg-and-butter money, seventy-five dollars seemed a fortune to Catha, and her face betrayed wonder at his sneering criticism of seventy-five dollars a month.

"No," he said conclusively, "we cannot get along on that, and the best chance to make more is on the farm. There is more money to be made in intelligent farming than any way I know."

"Thank you, I don't care to live on the farm any longer." They were both feeling hurt and speaking quickly. "I've had a-plenty of the farm. Sewing and washing and mending and cooking and scrubbing, and tending to the dishes and the garden and the stock, wearing calico wrappers and slashing around in coarse shoes. No, thank you; I want to move to town and have a good house and nice clothes and a chance to read and visit and enjoy some things."

Then Kenneth said in a very solemn, hurt tone that if a woman really loved a man, she would be willing to live anywhere with him.

Then Catha retorted that if a man really loved a woman, he would not ask her to live where she did not want to.

He said a woman ought to find happiness doing her housework.

She said a man ought to be able to make enough money to support his wife well and furnish help for her in town.

Both of them were hurt and ready to cry because the fragments of their air-castles were already strewn around them, because they were already quarreling—nearly.

They went on getting a little more hurt and a little more stubborn and a little angrier with every quick speech until he summed it up:

"Well, I'm going to live on a farm, anyway." His mouth shut stubbornly.

"Well, I'm going to live in town." Her lips shut tight.

And an hour later he drove back to town through

the moonlight which flickered through broken clouds, with his heart very sore, but his jaws still shut tight.

And she sat at her window and watched the patches of moonlight and shadows chase each other across the lonesome field. Her heart was nearly breaking, but her lips still closed with hot determinations.

They were no longer engaged.

All winter he went on with his work in town—and waited for a summons to come back.

All winter she went about her housework on the farm with a dull, lonesome ache at her heart—and waited for him to come without being sent for.

But the word never came to him, and he never went without it.

So in the spring he gathered together the few hundred dollars he had saved, and went in search of cheap land.

He found what he was searching for in the Ozark Mountains—eighty acres of uncleared land only four miles from a little town. He bought it for ten dollars an acre. It was rough, but much of it would do to cultivate, and all of it would do for pasture or orchard.

He began at once to clear land where he wanted the house, on the highest point of the hill. There was a little plateau here of ten acres or more. He would build his house and get this in orchard.

At first his muscles became so sore he could hardly work. Sometimes he wished he had stayed in town. And then some people told him the land was not worth clearing and that he could not make a living on it.

He saw readily enough that his dream of the farm needed modifying. It was not all fresh air and bird songs and blossoming wild flowers.

But Kenneth had good stuff in him and stuck to his plan. He read everything he could find, he advised with all the farmers and orchardmen in the county, and followed the advice of the most successful ones.

The first summer he built a cabin and cleared twelve

But it was no wonder to him. In the bitterness of his disappointment he had thrown himself with all his determination into the conquest of this wild land. He worked unceasingly, seldom leaving the place except for necessities. In the evenings he read and studied. He was always on the alert for new and profitable ideas, and always ready to carry them out, no matter what they cost in attention and labor.

Five, six, seven, nine years slipped away; and then one bright spring morning he stood on his front porch and looked upon four hundred acres of blossoming orchard that overflowed his hill, covered the valley and climbed the next hill. He looked upon this, and saw it was good; and then sighed as he turned back into the house, for it was empty.

"If it is Jim Phillips' you are going to board at, it's jest over the next hill." The mail-carrier had turned and was speaking to the young woman in the back seat of the hack. "But if it's John Phillips, then it's three miles farther on."

The young woman opened her suit-case and took out a letter.

"It's J. A. Phillips," she said, looking at the signature. "I reckon that's Jim," said the mail-carrier, and turned his attention to his team.

The girl sank back against the seat, and drew in a long, deep breath, and her eyes began to light with a new interest. Although it was spring, when life runs high, she was very, very tired. She was thin, too, and had a threatening little cough. It was this cough that had sent her to the hills.

For eight years she had been stenographer for a St. Louis implement company. The offices were down in the grimy river section of the city. In the winter the damp cold winds from off the water cut her to the marrow as she came and went. In the summer the humid, stifling heat almost smothered the life out of her.

She had begun at ten dollars a week. After eight years she was getting fifteen. That just barely paid her board and car-fare and kept her in respectable clothes. During the last winter she had caught a severe cold that left the distressing little cough. The doctor had ordered her to go at once to the country. "Get to the mountains," he said, "and just rest and breathe this summer, and you'll be well again. But stay here and work, and you'll go the way thousands of others go."

She did not have money to go to the West, but the doctor told her the Ozark Mountains in her own state would do as well. She had engaged board, and was now on the way.

"Oh! Oh! Oh!" The girl cried out with sudden ecstasy, sitting straight in the seat and clapping her hands. "I never saw anything more beautiful in my life than that."

"It is a right smart of a sight, ain't it," agreed the mail-carrier, mildly pleased.

They had just come out upon a shoulder of the hill near the top. On the plateau ahead of them and down the long sloping side and across the valley and up the opposite hillside swept the orchard—apple, peach, cherry and pear—and over and among the millions of tender green leaves were sown a myriad of white and pink blossoms.

"And the house!" exclaimed the girl as they drew near. "Look at the house. It is as beautiful as the orchard!"

The house stood back fifty yards from the road. It was a house built for beauty as well as convenience; with broad porches and strong pillars it faced the east. In front of it was a tender green lawn with rose-hedges around it and rows of early flowers beside the white graveled walk. Back of it were ten acres of the finest of fruit-trees laden with bloom.

"Why couldn't I board here?" said the girl. "I'd get well in a week in a place like this."

"I reckon you couldn't hardly board here," the mail-carrier chuckled, "a bachelor feller lives here."

It was Jim Phillips' at which she had engaged board; and the city girl was very glad, for it was within sight of the beautiful house and the hill crowned with apple-blossoms.

After dinner she sat on the porch with her eyes toward the hill—and dreamed. There was a great ache at her heart, a vast loneliness. Not for the city—she had learned that the glitter of the city is but an illusion. She had learned that toil and heat, heartache and sordidness, stalk beside the worker in the city.

No, she was infinitely glad to go back in the country, but the loneliness was for him. She had not seen nor heard of him for eight years. She had been too proud and hurt to inquire.

Toward evening she became restless and decided to climb the hill and get another view of the orchard.

It was almost sundown when she reached the crest of the hill and stood beside the fence, looking across the four-hundred-acre stretch of flowering trees.

She did not want to be seen and had turned and gone down the side of the hill, where she sat down and feasted her eyes and breathed in the fragrance.

[CONCLUDED ON PAGE 30]



"Well, I'm going to live on a farm, anyway." . . . An hour later he drove back to town"

acres. He set five acres in choice apple-trees and five acres in budded peach-trees of the best and most successful varieties. Two acres he set in strawberries, and between the peach-trees he set rows of blackberries and raspberries.

That winter he cleared more land, and in the spring planted the apple-orchard and the newly cleared land in potatoes, corn and vegetables for his own use.

There were plenty of failures. Some crops he could not grow well, others he found did not sell well. But he studied his soil and the markets; he attended the short course of the state agricultural college a few weeks every winter, and all the time he kept setting out more fruit-trees.

The first two years he just about held his own.

The third year he had a good strawberry crop, and sold six hundred dollars' worth from his four acres. Then his other fruit began to bear, and from then on his prosperity was a source of wonder to his easy-going neighbors, who were surprised at his success.

In Woodland.

Words by
FELIX F. FEIST.

Music by
HARRY BENNETT.

Andante con espressione.

mf *rit.*

Oh! there is a spot that is grand-er by far, Than lands that are rich and rare; Where
When night shad-ows fall and the sun sinks to rest, And stars twin-kle bright on high: And

birds build and sing, 'mid blos-soms of spring, And mus-ic fills the air. Where
bird-ings that roam, fly 'mer-ri-ly home, Ere dark-ness dims the sky, The

mel-o-dy floats on the breez-es all day, And when twi-light falls ev-ry star sheds its ray, 'Tis a
life of a bird is the sweet-est to me, To dwell in the woods and for-ev-er be free, 'Tis a

par-a-dise fair where there's nev-er a care, To en-ter the lives of those dwell-ing there.
beau-ti-ful vision my heart longs to share, To rest in the midst of Nat-ure so fair.

rit. *ral.*

REFRAIN.

In wood-land, in wood-land, there I would live and die; In wood-land, in wood-land,

there shall I nev-er sigh; At sun-ri-se, and sun-set, mel-o-dy fills the

rit. *a tempo.*

air; In wood-land, in wood-land. Would I were ev-er there.

rit. *p* *f*

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THE AMERICAN MAGAZINE

Springfield, Ohio

Quaint Patterns for Quilts

With Diagrams Showing Sizes and Shapes of Patches

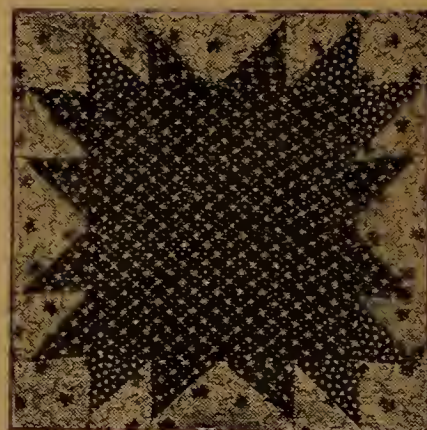
By Charlotte F. Boldtmann



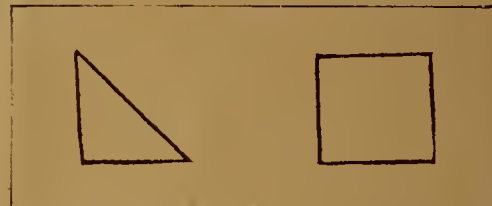
Scroll block of units of two patches



This pattern is prettiest of two colors



Square with jagged edges made of triangles



INTEREST in patchwork shows no signs of diminution and everywhere new patterns and new color-schemes are sought. This page of patterns is printed to satisfy that seeking. The blocks have been carefully chosen and are made up of patches that are easily put together, yet lose nothing of artistic beauty because of their simplicity.

Most difficult of all are the blocks shown in the scroll illustrated at the top to the left of the page. For this block square patches of contrasting color are taken, each three and three-fourths inches square. The square is cut into two sections as shown in the diagrams below the block, the smaller patch one and one-fourth inches along each straight edge, and a quarter section of a circle on its curved edge. Two colors are used for the pattern, and a small patch of dark color is joined to a large patch of light color, and vice versa, thus forming a number of squares made up of the two colors. These squares are so joined that they develop the block illustrated.

The next pattern, illustrated at the center of the top of the page, is simplicity itself and consists of one patch, four and one-fourth inches across at the top and the bottom, and three inches along each diagonal edge. A quilt of this pattern might be made of white and two shades of some color, although it is prettiest when made of two contrasting colors.

The block at the top to the right of the page has a center square seven inches each way. Around this square, to give the jagged effect to its edges, are small triangles. Those with a straight edge placed against the center square must be like the latter in color, the others are contrasting. At each corner of the block is a square one and three-fourths inches each way and contrasting in color. The triangles are one and three-fourths inches at each side of the right angle.

At the center of the page is a block that makes an attractive quilt, although it can hardly be spoken of as a block, because the quilt must be begun with the center hexagon and the patches joined around it, ring after ring, until the quilt is correct in size. Three units are used in the pattern: a hexagon four and one-half inches

in diameter and two and three-fourths inches on each edge, and a square and a triangle, both two and three-fourths

easy one to make, and appeals particularly to the woman seeking for something in which to effectively use a number of hit-and-miss patches. The square patch used is three inches each way, and the diamond is three inches on each side, two and three-eighths inches across the center, and five and one-fourth inches as its center length. It improves the appearance of the quilt to put a tiny square patch over the center of each star. The squares

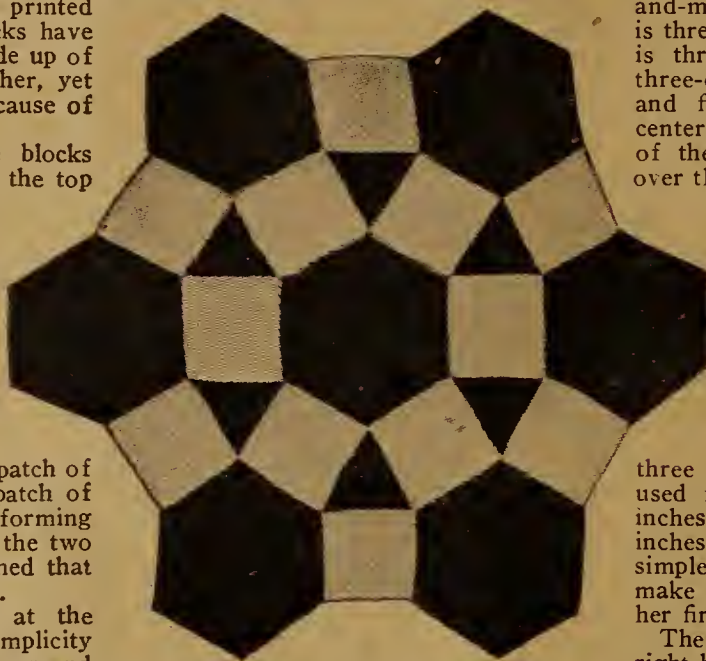
do not encircle any but the first star. After that is made a star is joined to each square, and squares put around the new star.

For the interlaced pattern shown at the center of the bottom of the page, it is hardly possible to use other than three colors—one for the squares and one for the interlacing patches each way. The squares are three inches each way, the long patches used for interlacing one and one-fourth inches across and seven and one-fourth inches long. This pattern is an unusually simple one, yet is attractive enough to make it pleasant work for a child taking her first steps in sewing.

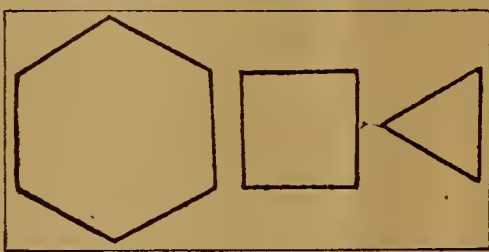
The star hexagon block at the lower right-hand corner is unusually large for a quilt-block, measuring fourteen and one-fourth inches along each side. The center, however, is made of such small pieces that the work does not become cumbersome. Each diamond is two inches across the center, four inches long, and two and one-fourth inches along each side. Three colors must be used. The strip of lighter color at the center of each side of the hexagon is four and one-half inches along its inner edge, six and one-half inches on the outer edge, two and one-fourth inches down each side. The outer border is fourteen and one-fourth inches on the outer edge and eleven inches on the inner. The border is two inches deep.

These few suggestions will be especially helpful to the woman who is interested in making quilts. And making quilts is becoming quite a fashionable diversion. Indeed, it is almost as popular as the present craze for making Irish crochet. With the diagrams given, it will be a simple matter for any woman to cut her own patterns.

EDITOR'S NOTE—We do not furnish the patterns for these quilt designs.



In the block pattern each hexagon forms the center of a new unit. The work is begun with the center hexagon, the patches joined as illustrated, a square added at each edge of the outer row of hexagons, triangles put between and the work so continued to produce the needed size



inches on each side. The block pattern may be made of two colors, as illustrated, or the square may be made of one color, the hexagons of another and the triangles of the same color as the hexagons, but of a lighter tone.

The star-and-square pattern, illustrated to the left at the bottom of the page, is an



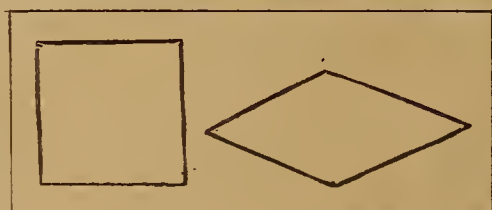
Stars of yellow and white with blue squares



Interlaced pattern with squares of one color



A large block made of small patches



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No. 1883—Tucked Long-Waisted Dress

Cut for 2, 4, 6 and 8 year sizes. Material for medium size, or 6 years, four yards of twenty-two-inch material, or two and one-half yards of thirty-six-inch material

THE woman who simply must economize in planning her winter clothes should always remember the possibilities of the shirt-waist. The separate waist of flannel or cashmere made from a good, well-cut pattern will do wonders in helping out a limited wardrobe. For instance, if you have a skirt of brown cheviot or tweed, be sure and have more than one waist to wear with it. A tan flannel waist with a stripe of brown would look well, or a waist of ecru cashmere made like pattern No. 1888, and trimmed with brown satin-covered buttons and brown silk loops. Be sure and repeat in the separate waist a touch of the coloring of your skirt, if only in the buttons.

No. 1888—Blouse with Sailor Collar

Cut for 32, 34, 36, 38, 40, 42 and 44 inch bust. Material for medium size, four yards of twenty-seven-inch material, or two and one-half yards of thirty-six-inch material

No. 1891—Shirt-Waist with Yoke

Pattern cut for 32, 34, 36, 38, 40, 42, 44 and 46 inch bust. Material required for 36-inch bust measure, three and three-fourths yards of twenty-seven-inch material



No. 1769—Double-Breasted Wrapper

Cut from 32 to 44 inch bust, inclusive. Material for 36-inch bust, nine and one-fourth yards of twenty-seven-inch material. If flounce is used, add one and three-eighths yards of twenty-seven-inch material

The price of the patterns is ten cents. Order from Pattern Department, FARM AND FIRESIDE, 381 Fourth Avenue, New York; Pattern Department, FARM AND FIRESIDE, Springfield, Ohio; Pattern Department, FARM AND FIRESIDE, 1538 California Street, Denver, Colorado.

No. 1881—One-Piece Dress with Pockets

Pattern cut for 32, 34, 36, 38, 40, 42, 44, 46 and 48 inch bust measures. Material for 36-inch bust, seven and one-fourth yards of twenty-seven-inch material, or five and five-eighths yards of thirty-six-inch material. It will be most practical made of serge or a soft worsted, and trimmed with black braid, or piped with black satin



No. 1884—Dress with Side Closing

Cut for 6, 8, 10 and 12 year sizes. Material for 8 years, three and five-eighths yards of twenty-four-inch material, with one fourth of a yard of embroidery and one half of a yard of contrasting material

THE woman who needs to replenish her wardrobe and who is anxious to be well dressed will find many designs illustrated on this page which will specially help her. The dress pictured in pattern No. 1881 can be developed in a variety of materials. If a silk dress is needed, this smart little model can be made of taffeta, with dainty white mull for the collar and cuffs, while, if a dress of cloth is desired, it will look well made of serge, tweed, cheviot or cashmere. For a morning costume, the double-breasted wrapper, shown in pattern No. 1769, will be found most practical. It is best to have this of one of the heavier wash fabrics in dark shades.



No. 1898—Overcoat with Double Collar

Pattern cut for 32, 34, 36, 38, 40 and 42 inch bust measures. Quantity of material required for medium size, or 36-inch bust, eight and one-half yards of thirty-six-inch material, such as reversible serge



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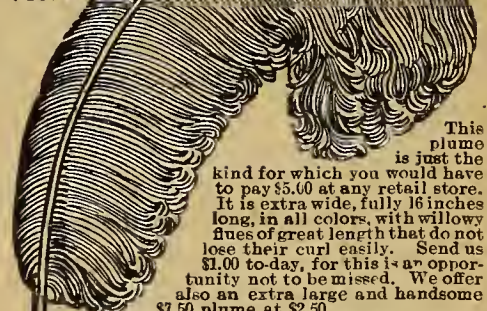
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The Home Interests' Club

They Discuss Thanksgiving Dinners

By Margaret E. Sangster



T WAS an afternoon in Indian Summer. The air was soft and caressing in its touch; the leaves, yet lingering on the trees, were yellow and crimson, and Nature seemed like a loving mother resting. Such an afternoon gave the club an invitation to a large and enthusiastic meeting. The minister's wife welcomed her guests at the door of the manse, and the minister himself, passing through the hall on his way to keep an engagement of his own, stopped an instant to give the ladies a word of good cheer. All days in November are stepping-stones to its greatest day. In this dear country of ours we early began to render thanks to Almighty God for His bounty, and once a year the nation is like a single, immense family, sitting down at many boards, but everywhere lifting the same song of praise.

The order of opening exercises for the club being informal, the subject uppermost in the mind of each was presented without delay. Mrs. Elderbury boldly cast into the midst of the group a question that was almost a bombshell.

"Is the family dinner on Thanksgiving Day rapidly becoming a bore and a burden?" As she spoke, it was curious to observe the faces of the women who listened. The Thanksgiving dinner a burden, with its traditional menu, the best the market affords, from the golden-brown turkey, proudly uplifting his generous bulk on a great blue platter, to the spicy pumpkin pie of which the secret has been handed down to generations? The family dinner, with its happy assembling of the scattered clan from far and near, from white-haired grandparents to babies just beginning to walk—could anyone dare to stigmatize this time-honored festival as a bore?

Mrs. Elderbury surveyed her friends with a calm and dignified mien. There was a twinkle in her eyes that contradicted the gravity of her speech. "I see," she proceeded to say, "that some of you are aghast and others offended and still others puzzled at the manner in which I have introduced our topic for discussion, which is, as I should sooner have said, 'How shall we keep Thanksgiving?' I imagine that no one under this roof would be willing, if she could help herself, to offer her family a dinner of corned beef and cabbage, a pot roast or a stew on Thanksgiving Day. Indeed, although I have asked a question with apparent sobriety, you are not to suppose that I would reply to it personally in the affirmative. Yet, I have heard a great many people recently speak as if they would like to get rid of the trouble incurred by a Thanksgiving dinner, and we all understand perfectly that the athletic sports of the hour oppose themselves to a midday meal.

"The Thanksgiving dinner of our forefathers included the children, the young people and the older ones, but in a thousand neighborhoods there are football-games out of doors that attract a host of spectators, and in the cities and towns there are matinees occupying the long holiday afternoon. When I was a girl, everyone went to church in the morning of Thanksgiving Day. Everyone also went to the dear homestead and met aunts, uncles and cousins, and had a jolly time, and at night everyone slept the better for having felt again the thrill of kindred blood and for the acknowledgment of the debt to the Father in Heaven. It is because I have heard so much in recent years that seems to me a profanation of our republican ideal that I have ventured to ask your opinion to-day."

Mrs. Polhemus, a matron who seldom found the courage to address the Chair, was on her feet in an instant. "Madam President," she said, "and all of you who are my dear neighbors, pardon me for expressing myself strongly. The truism which Mrs. Elderbury's question points to is, in my judgment, alarming. I never dreamed that I would live to hear Americans speak lightly of republican ideas of government. That this has come to pass within the last score of years most of us know. We are compelled often to listen, with what patience we can muster, to the comparisons that are made between other nations and ours, in the matter of good government. Our young people are not so patriotic as we used to be, and it is in keeping with the general letting down of simplicity that there are those who prefer outings, picnics, matinees and games to an old-fashioned Thanksgiving dinner. It is the greatest of pities for a family to loosen the bond of close relationship. We are not placed in our homes like ivory balls in a box, each separate and distinct, and each ready to roll away. We are more like links in a chain, the chain as strong as iron until somewhere a weak link is broken. Hospitality is the corner-stone of home happiness, not perhaps of home permanence, but of real roseate happiness. When we are not hospitable, especially to home folk, we grow narrow and selfish. I plead for the maintenance of the Thanksgiving dinner-table and I urge that we frown upon anyone who calls it a bore, much less a burden."

As Mrs. Polhemus took her seat, Miss Elizabeth Safford rose. This lady was usually called by the familiar name of Miss Betty, which slipped easily from the lips of the children and was an endearing title generally adopted by the county in which she was a favorite. Miss Betty had been a teacher, and in that capacity had taken part in the education of many leading citizens of the countryside. She might have posed for a portrait of an ideal Indian Summer, so beautiful and benignant she was, so gentle and gracious, so winsome and wise.

"We need not disturb ourselves," she remarked with a smile. "This is a big country, and all sorts and conditions of people have come to it since Massachusetts and Virginia were colonized from the Old World. Undoubtedly there are among us those who do not appreciate the true meaning of a Thanksgiving Day. There may be those who do not care for a Thanksgiving dinner, but we do not judge a situation by exceptions, but by the rule. In the mass, our people honor the flag, cherish the memory of our heroes and worship Him to Whom we owe our existence.

One of the younger members of the club was the next speaker. "For my part," she said, "I fully agree with Miss Betty. There is no special danger either that the religious character of Thanksgiving Day, shown by its very name, will ever suffer change, or that its social order will be modified for the worse. Those who are away from home are always longing to see it again; and, although the claims of business are relentless at other seasons, men and women, too, make great efforts

to get back to the old home, which is often the farm home, on the return of Thanksgiving. We who live in the country often have cause to lament the departure of our boys to the cities as soon as they grow up. The country supplies the town with its best raw material, and the most successful business men, the most eminent professional men, have had their start in communities like ours."

"Hear! Hear!" cried someone, and there was a little ripple of laughter and a flutter of approval that seemed to run around and pervade the circle.

"Yes," continued the speaker, "our boys go away from us, and in some of our rural villages they are terribly missed. In the church life, for example, we find the old people, the charming spinsters, the young women who have been graduated from college, the girls who are going there, the middle-aged parents and the children, but very few young men. The whole countryside looks up and grows jubilant, and every household brightens and mellow when at Thanksgiving the boys come back. I agree with Miss Betty. There may be talk that seems to menace our most loved American holiday, but it is really nothing more than talk. Just as long as there are people at home who are loving and praying for the absent ones, and absent ones who are loved and prayed for, Uncle Sam's trains will be crowded with home-going children every November. Thank God, there are signs that after a while the boys will stay on the farm."

"I wish," said the minister's wife, "that some of us understood how to be thankful in our individual experience. I am always summing up my mercies and saying to myself when there is a cloud that it has a silver lining, but I am afraid I cannot be sure that I possess a thankful spirit. I try to live above the low mood, but I am not always able to do it."

"Few of us are," answered Mrs. Madison quietly. "When health is at high tide and we are free from bodily pain and independent of infirmity, it is much easier to be buoyant and light-hearted than when we have neuralgia or are deaf or worried over the smallness of the income and the largeness of the outgo, or disappointed because the crops have not been what we hoped. When we try to be brave, to keep our low spirits in check, walk the rough way without complaint, and do what we can to make others happy, I believe that our Father in Heaven understands and accepts the offering we can give. You remember the words in the Sermon on the Mount, words that are always full of comfort, 'Your Father knoweth what things ye have need of before ye ask Him.' Those words were spoken, I feel sure, for the direct benefit of women who live on the farm and watch the weather indoors and out, and keep the men happy and hopeful and consider their homes the stage for developing the finer qualities in their children. We women who are home-makers and housekeepers often live thankful lives when we say least on the subject."

A little woman in the corner of the room said timidly, "I was angry the other day. I felt the blood rush to my cheek, and I had to shut my lips firmly to keep still. One of the children dropped a bottle of ink right in the middle of the new rug which had cost her father and me the self-denial of a twelvemonth. I had the grace to realize that it was an accident, and I did not say a word to make Gladys feel sorrier than she did, poor little thing. But, what do you suppose one of my friends said to me that evening when I was lamenting the spot on the rug? It will never be wholly effaced, and I shall always have to set a large armchair over the place, and somebody will always push it back, and, anyway, I shall always know the blot is there. This lady actually said, 'My dear, you have your husband and children, and you ought to be very thankful.' What on earth had that to do with a ruined rug in my living-room?"

"People frequently make those irrelevant remarks," said Mrs. Elderbury, "and I always want to shake them. A friend of mine is growing deaf. Her deafness is not only a great privation, but as she is a music-teacher it threatens her means of livelihood. One of the race of Job's comforters, a race that never fades from the face of the earth, told her the other day that she ought to be thankful that she was not a cripple. My conviction is that we have not very much to do with other people's reasons for gratitude, and we ought to be very careful how we go about tacitly reproving others and giving them half sympathy instead of whole when things are hard for them."

"Before we separate," said a new member, "ought we not to glance at our duty to the poor people in town who have not the advantage possessed by those who live on the farm? Last summer I took into my home a half-dozen little children from the poorest quarter in the nearest big city. It made my heart ache to see how thin and pale they were and how little they knew how to play in the outdoor freedom of the fields. One little fellow was homesick, and moped the first week, but after that he was as merry as a kid, and frisked about, rode on the hay-wagon, fed the chickens, and ran on errands for me just as our own boys do. I have no children, though I have always longed for them. I thought the matter over, persuaded my husband to let me have my way, and I kept the children as my private Fresh-Air offering for the month of August. I am going to send a barrel of apples, two or three pumpkins, a bagful of nuts and a turkey to a Settlement in the neighborhood where those children live. Do you not agree with me that the best Thanksgiving is one that we share with the less fortunate friends out of sight? Sometimes these friends may be waifs in an orphan asylum, or they may be a crowd of jolly newsboys or even sad-faced prisoners behind bars. Whoever and wherever they are, if they do not know the cheer and comfort and liberty of real country living, we ought to send them a bit of our blessed Thanksgiving Day."

"I am glad you used the word 'friends,'" said the minister, who had entered and quietly taken a seat in the back of the room. He rose as he spoke, and, looking around, decided to step to the front where he could look into the faces of the women, most of whom were his parishioners. "I am glad you included in that word some of the victims of sin, some who have been tempted and fallen, and some who have lost hope. The prisoner in his cell is too often forgotten by the people who have never gone astray. Thanksgiving reaches its fullest meaning when it leaves nobody out in the cold."

SUNDAY READING

Every-Day Religion

By Dr. John E. Bradley

THERE is a kind of religion which people put on with their Sunday clothes. Like their clothes, it generally makes a good appearance. It is careful to observe the times and forms of worship and devoutly follows the ritual and the creed. It is not usually hollow or hypocritical and we need not undervalue it.

But there is another kind of religion which is worn by its possessor wherever he goes and gives character to all his actions. It may not always make as good an appearance as the other, but it is far more valuable, both to its owner and to all with whom he mingles. It animates his daily life and unconsciously shines forth in all he does. It is not laid aside like a garment for fear it will be soiled in one's occupation, nor does it fade or go out of style with the lapse of time. People distrust a religion of forms, but they quickly recognize and honor a religion of kind and generous deeds.

What is the key to this practical religion, this religion of every day? How may we possess it?

The Eleventh Commandment

It is related of Samuel Rutherford, pastor of the little church in Anworth in Scotland, that he was accustomed to gather those of his parish who wished to come on Saturday evenings for familiar questions and instruction. One evening a young stranger came in and as Mr. Rutherford went round the group, with his simple conversation and instruction, he asked this new member of the company the familiar question, "How many commandments are there?" "Eleven, sir," was the reply. "Eleven! Eleven!" exclaimed Rutherford. "What do you mean? Are you making light of our humble service? Pray, what is the eleventh commandment?" The young man answered, "A new commandment I give unto you, That ye love one another; as I have loved you, that ye also love one another. By this shall all men know that ye are My disciples, if ye have love one to another."

Mr. Rutherford was much surprised by the answer, and engaged in further conversation with the youth, and became deeply impressed. At the close of the meeting he learned that the visitor's name was James Usher and that he was a student preparing for the ministry. Mr. Rutherford, with some misgivings on account of his youth, invited him to preach the next Sunday.

The unexpected answer which young Usher had given in the pastor's class was much talked of as the people separated to go to their homes, and brought a whole churchful the next day to hear him preach. He gave out as his text the same verse which he had recited in answer to the pastor's question the evening before, and in simple words he told his eager hearers of the spirit of good will and helpfulness which he believed was the most important thing in life. And as he told them how easy it was for everyone, high or low, rich or poor, to possess it, and what wonderful things it would bring to pass in every heart and in every place in the world, they listened to the old, old story with a new and absorbing inter-

est. And many years after, when the youthful preacher had become famous, they loved to tell how this first sermon of Archbishop Usher, preached while he was still a boy, had enriched and beautified their home life and transformed the life of the little village in which they dwelt.

Practical Religion

Who would not wish to have this simple, practical, every-day kind of religion? Would not everyone desire it for his own sake, for the peace and gladness it will bring him, and for the sake of others, that he may benefit them and win their regard? Every-day religion makes men upright and true and genuine. It will not stoop to shams and deceit. It takes no unfair advantage, drives no hard bargains, permits no misrepresentations. It gives and it expects the square deal. We need a religion which will make us calm and true all the time. We want Golden-Rule Christians.

When the American missionaries in China were awarded by a royal commission double the amount of their losses after the Boxer rebellion, they declined to receive a dollar more than the damage which they had actually sustained. When a young woman, who had been aided in securing an education, earned last year her first salary, she made haste to repay the indebtedness. Integrity, faithfulness, justice, are the first duty of every person and every organization. What we do shows what we are. Our work is a part of ourselves. Any religion is indeed hollow and vain which does not teach us to be just and truthful, to stand foursquare on the cardinal points of morality.

Gentler Motives

But *duty* is a cold word. It is no great credit to anyone to be honest and truthful, though it may be a great disgrace to fail in these respects. We want a religion which will warm the heart, which will soften the judgments and mingle mercy with justice, a religion of love. It blesses him who gives and him who takes. As religion ceases to be superficial and becomes deeper and more fully a part of ourselves, it makes us sympathetic and helps us to appreciate another's needs.

Not long ago a sudden storm drove a ship upon the English coast. It was low tide and the vessel struck the ground far out from the shore. As the waves broke over her, the crew could be seen clinging to the rigging. There was no chance of saving either ship or cargo, and the marine agents calmly watched her breaking up. Suddenly Thomas Pritchard called out, "Who will come with me and try to save the crew?" It looked like going to certain death, but twenty men instantly sprang forward. Pritchard selected seven—all who could go—and, running a boat down into the beating surf, they leaped in and dashed through the breakers. How the boat lived seemed a miracle, but courage and bravery won the day, and the six men on the stranded collier were all brought safely to the shore.

"How could you do it?" a bystander said to Pritchard.

"I thought someone ought to save those men," was his reply.

The Man of Twenty-One

By W. D. Neale

TO-DAY you are twenty-one. If life means anything to you, no doubt you feel you must shoulder greater responsibilities than ever before. You go forth now to make your way in the world, to rub elbows with your fellow men and to stand or fall in the business world.

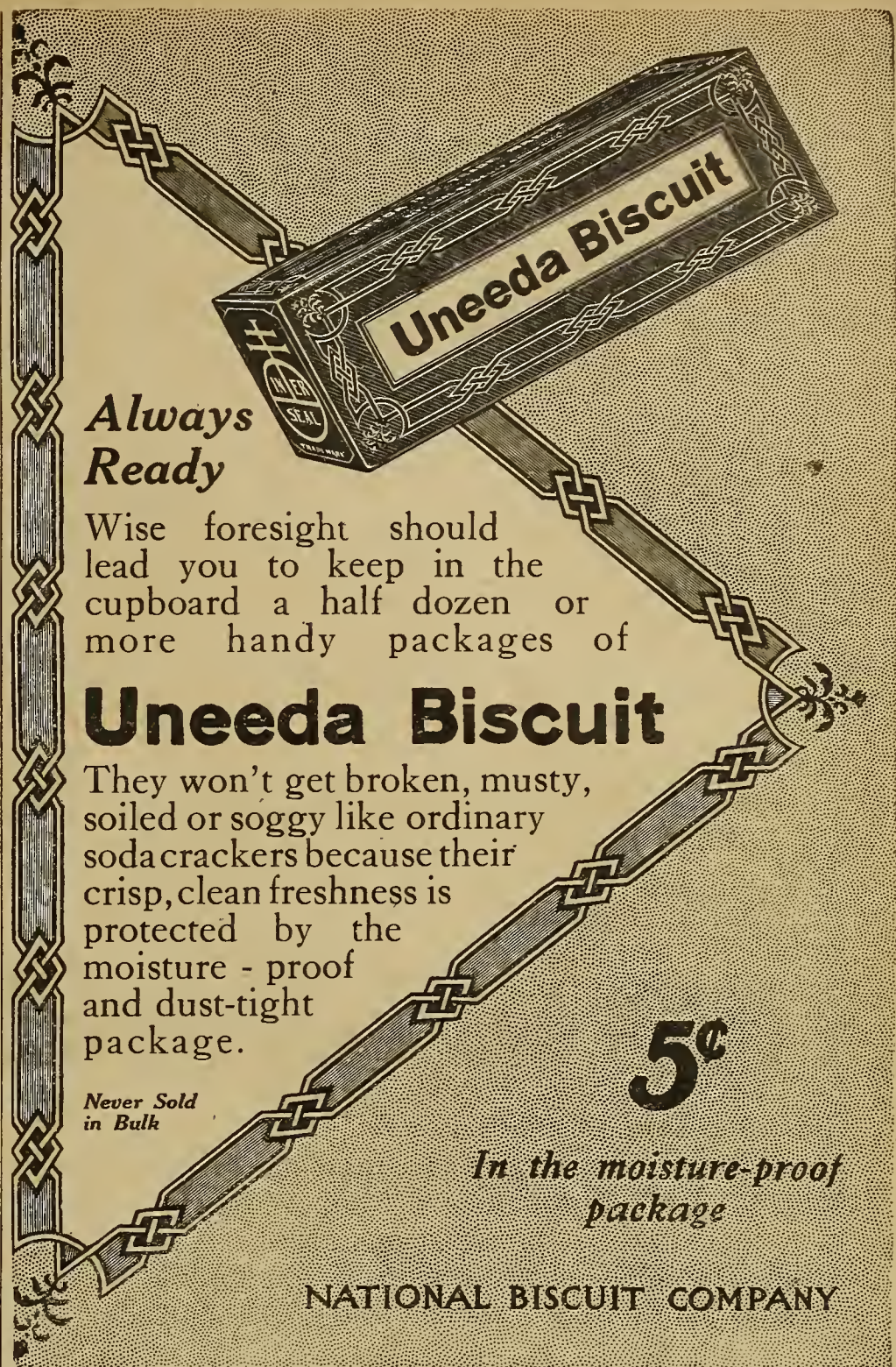
You must choose your own place in life. By nature you are no doubt fitted for some special line of work, and you constantly find your inner nature calling you to enter upon its duties. Select the position in life for which you are best fitted and in the pursuit of which you will take pride and pleasure.

When your life's work is chosen and you have entered it, make it a rule to be perfectly square in all your dealings with mankind. "Honesty is the best policy" may be an old adage, but it is nevertheless a true one.

Make up your mind to live a perfectly

sober life. Intoxicants have unfitted thousands of men for the business life and finally become their utter ruin. It may sometimes be difficult to refuse when a very dear friend urges you to indulge, but it will pay you in dollars and cents as well as in manhood to resist.

As you no doubt come in touch with many young people, you must choose your associates. Let them be pure and high-minded. From these young people you will no doubt choose the girl who is to share life's joys and sorrows with you. Whatever you do, never trifle with a girl's affections. When you pay marked attention to a young lady, she has a right to think you want to be more than a mere friend. Do not turn from her to another "just for fun," or "to make her jealous." You will regret it when you are settled in life, whether you marry her or the other girl, however happy your life may be.



Always Ready

Wise foresight should lead you to keep in the cupboard a half dozen or more handy packages of

Uneeda Biscuit

They won't get broken, musty, soiled or soggy like ordinary soda crackers because their crisp, clean freshness is protected by the moisture-proof and dust-tight package.

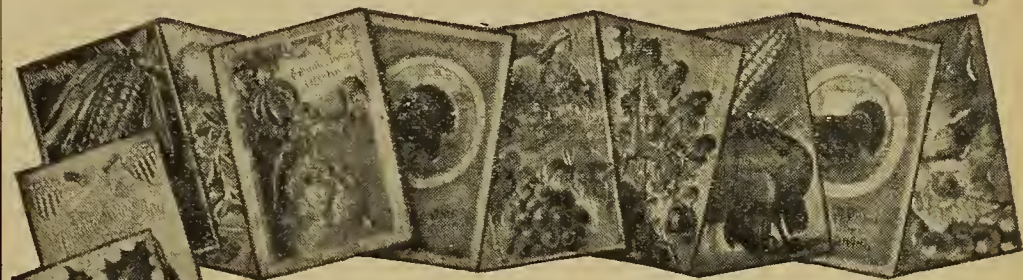
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Never Sold in Bulk

In the moisture-proof package

NATIONAL BISCUIT COMPANY

Our Great Thanksgiving Gift



Elegant Thanksgiving Post-Cards For All Subscribers

EVERY subscriber to FARM AND FIRESIDE can have a set of these elegant Thanksgiving Post-Cards. Our assortment of Thanksgiving Post-Cards is the most handsome and unusually classy collection ever assembled. This collection was selected with the greatest care and discrimination after going over the exclusive line of all the great post-card manufacturers in America. We know you cannot duplicate these cards anywhere, because the manufacturer promised not to sell them to others this year. Your Thanksgiving Post-Cards will be something entirely new and different. Of course, you will send Thanksgiving Post-Cards this year. It is now a universal habit and a mighty delightful and kindly habit, too, because it is a most delicate and effective way of conveying your regard to friends, neighbors or relatives.

Choose Your Gifts

A set of these beautiful Thanksgiving Cards will be sent you, all charges prepaid, just as soon as we receive your acceptance of one of the below Special Short-Time Offers:

Offer No. 1

FARM AND FIRESIDE one year and a set of 25 Thanksgiving Post-Cards, post-paid; all for - 50c

Offer No. 2

FARM AND FIRESIDE two years and a set of 50 Thanksgiving Post-Cards, post-paid; all for - 70c

Offer No. 3

FARM AND FIRESIDE three years and a set of 50 Thanksgiving Post-Cards, post-paid; all for - \$1.00

A set of 50 Thanksgiving Post-Cards will be given free to club-raisers, all charges prepaid, for a club of two yearly subscriptions at 35c each.

This Offer Only Until November 25th

Farm and Fireside, Springfield, Ohio

Your Winter's Reading

THE CROWELL PUBLISHING COMPANY, which publishes **FARM AND FIRESIDE**, also publishes **WOMAN'S HOME COMPANION** and **THE AMERICAN MAGAZINE**. Every family where **FARM AND FIRESIDE** is read should be equipped with these two other great contributors to home enjoyment. This is the time of year to arrange for the winter's reading. This is the special time (see special offer below) to arrange for these particular periodicals.

WOMAN'S HOME COMPANION, with three quarters of a million circulation, is a famous woman's paper, the best in its field. It is a great home periodical—beautiful, instructive and exceedingly useful. It provides wonderful stories, special articles and departments—all fully illustrated.

Twenty practical departments are included in **WOMAN'S HOME COMPANION**, in which scores of money-saving and time-saving suggestions are given free to readers. In addition to this, hundreds of women subscribers in the course of a year sell their own ideas to the **COMPANION**. Last year 674 women sold their housekeeping and other ideas to the **COMPANION**.

THE **AMERICAN MAGAZINE** is that great illustrated monthly in which Senator La Follette is just now beginning his Autobiography. This story alone, which will run all winter, is worth much more than the price of a subscription. But in addition to La Follette's Autobiography, **THE AMERICAN MAGAZINE** will publish this winter a great number of extraordinary features. One of them is a serial novel by H. G. Wells, entitled "Marriage"—the dramatic story of an extravagant wife and a burdened husband.

In the December number **THE AMERICAN MAGAZINE** will publish a new Sherlock Holmes story by Conan Doyle—full of mystery, wonder and daring. This single feature will be the literary sensation of the month.

THE AMERICAN MAGAZINE has marked characteristics. Those who read it—and the number is increasing at amazing speed—choose it because of its distinctive qualities. It has energy, liveliness, candor, courage and humor. It is a great growing periodical, much appreciated by every family that takes it.

We will send **WOMAN'S HOME COMPANION** to any **FARM AND FIRESIDE** reader for a year for \$1.50, and we will send **THE AMERICAN MAGAZINE** for a year for \$1.50. We will send both **WOMAN'S HOME COMPANION** and **THE AMERICAN MAGAZINE**, each for a whole year, for the special price of \$2.30—a saving of 70 cents.

THE CROWELL PUBLISHING COMPANY

Springfield, Ohio

A Christmas Menagerie

PERHAPS it is at Christmas-time, more than at any other season of the year, that mother wishes she lived in a great, big, bustling city, for she, as well as the little folks, might like to get a look at all the wonderful new Christmas toys. But if it is just impossible for her to step inside one of these great big shops, all dressed up in its Christmas array, then let her be thankful that she has dear old **FARM AND FIRESIDE** with its always helpful Christmas suggestions.

If she cannot buy toys in a shop to make Christmas Day happier for the little folks, then let her throw all her enthusiasm into the planning of some interesting, new, home-made gifts. There is hardly any little

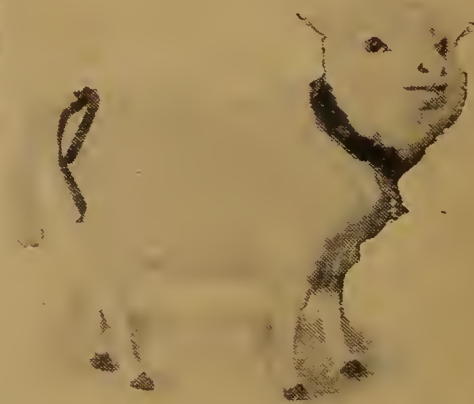


No. 1653—Gray Squirrel

Pattern cut in one size. Quantity of material required, one-half yard thirty-six-inch gray plush, with a small piece of white for under body and shoe-buttons for eyes

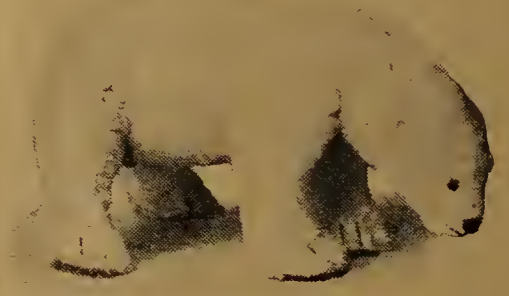
boy, or any little girl, who would not love, on Christmas, a new animal for the menagerie which generally occupies a place in every home where there are little folks.

To help mother out in getting a new animal for the Christmas menagerie, this page has been prepared. It shows the pictures of both wild and tame animals, and there is not one of them that mother cannot make herself. If she will write to one of the following **FARM AND FIRESIDE** pattern stations, she can get for ten cents a pattern for one of these animals: Pattern Department, **FARM AND FIRESIDE**, 381 Fourth Avenue, New York; **FARM AND FIRESIDE**, Springfield, Ohio, or **FARM AND FIRESIDE**, 1538 California St., Denver, Colo.



No. 1246—Woolly Lamb

Pattern cut in one size, for lamb 13 inches long. Quantity of material required, five eighths of a yard of thirty-six-inch material, chamois for face and shiny black buttons for the eyes. Use white eider-down for lamb. Price of pattern, ten cents



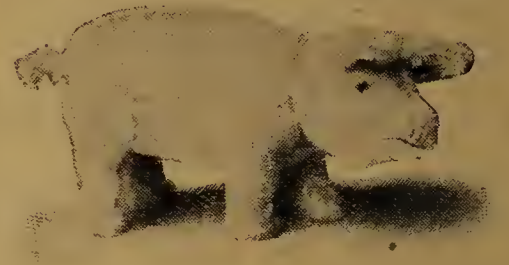
No. 1649—Polar Bear

Pattern cut in one size. Quantity of material required, five eighths of a yard of thirty-six-inch material, with a small piece of chamois for the four paws, buttons for eyes and coarse black embroidery-silk for nose and to designate mouth and claws



No. 1245—Jointed Donkey

Pattern cut in one size, for donkey 16 inches long. Quantity of material required, three fourths of a yard of thirty-six-inch fabric and two buttons for the eyes. Use gray flannel or gray velour for making this nice jointed donkey with his pointed ears



No. 1647—Jointed Pig

Cut in one size. Quantity of material required, one-half yard of thirty-six-inch material, with two buttons for eyes and a piece of pink velvet for snout. A light pink cotton plush is a good material to select for this nice little pig with his curled tail



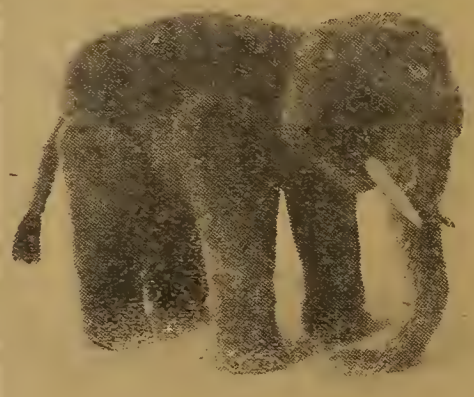
No. 1650—Toy Duck

Cut in one size. Quantity of material required, three eighths of a yard of thirty-six-inch material, one eighth of a yard of green material, with a small piece of velvet for the head and white silk for the top-knot and bright-toned felt for wings



No. 1648—Red Fox

Pattern cut in one size only. Quantity of material required, three eighths of a yard of thirty-six-inch dark material and one fourth of a yard of white material, with two buttons for the eyes and a little black embroidery-silk for his saucy little nose



No. 1244—Jointed Elephant

Pattern cut in one size, for elephant 9 inches high. Quantity of material required, one-half yard of thirty-six-inch material, a small piece of chamois for tusks and buttons for the eyes. Pattern, ten cents



No. 1438—African Lion

Pattern cut in one size, for lion 9 inches high. Quantity of material required, three fourths of a yard of twenty-two-inch material, with one fourth of a yard of cotton plush and two buttons for eyes



OUR YOUNG FOLKS' DEPARTMENT

Conducted by Cousin Sally



Prince Gladheart and the Sun-Fairy

By Eunice Janes Gooden

Author of "The Light That Came," Etc.



ONCE upon a time there lived in a far-off country a little prince named Gladheart. Back of the beautiful home where Gladheart lived there was a forest where the little prince often gathered wild flowers and berries.

One day Gladheart took his little tin pail and went into the woods to gather berries. He picked a few here and a few there, and as he went along the squirrels peeped at him with their bright eyes, and chattered, "Good-morning, Gladheart," and then scampered away; and the birds above his head chirruped, "Good-morning, Gladheart," and flew from tree to tree, following him as he went deeper and deeper into the forest; and the bees, that came to gather honey from the flowers, buzzed, "Good-morning, Gladheart."

Finally Gladheart came to something that he had never before seen when he had been in the woods. It was a little round house with windows on all sides. It was a very strange house, and Prince Gladheart wondered if anyone lived in it, for he noticed that all the windows were tight shut, and the blinds were drawn down. The door, too, was shut.

Now Gladheart had been gone from home so long that he began to feel a little thirsty. "I'll knock on the door," he thought, "and if there is anyone at home, I'll ask for a drink of water." So he stepped up to the door and knocked. He waited for a second, but the door did not open. Then he knocked again, this time a little louder.

"What do you want?" called a voice from inside. But, whoever it was, she did not open the door, and something about her voice made Gladheart feel that he would rather not trouble her to ask her for a drink.

"I think it must be some very old little woman that lives there," he said to himself. "She must be very lonely, and how very, very dark that house must be inside, with all the windows and the door tight shut! I wonder why she doesn't have them open; it would be much pleasanter."

At last Prince Gladheart sat down to rest upon a big mossy rock, and as he sat there, his little pail half full of berries beside him, he was still thinking about the old woman in the dark house. "All outdoors is so full of sunshine; if she could only have a little of it, I'm sure she'd feel better. Her voice sounded as if she did not feel at all happy shut up there."

Then a great idea popped into Gladheart's head. "I know what I'll do, I'll try to catch some sunbeams in my little tin pail, and take them to her. I'll go to the door and knock until she opens it, and when she does—just a crack—I'll take off the cover and let in the sunbeams, and then I'll run quickly away."

So Gladheart set out to catch sunbeams. He came to a stream that laughed and bubbled along as if it were having the merriest sort of a time. And where the sun shone upon the water, it sparkled and seemed to glance off and dance upon the bank where he could easily reach it.

"Here is certainly my chance!" exclaimed Gladheart. Gently—very gently and slowly—he pushed the empty pail over the very spot where the sunbeams were dancing, and, sure enough, they danced right inside the pail, and filled it full of shimmering brightness!

"I have you now, a whole pailful!" he laughed, and he pushed the lid down as far as it would go, then turned and ran. Just before he reached the little round house he decided to peep in and make sure the sunbeams had not escaped. But—yes, I know you have already guessed what he found. The pail was empty; there was not a single sunbeam inside.

Gladheart turned slowly back to the rock where he had left his berries. He did not like to give up, and he kept saying to himself, "I want to get some sunbeams to that little old woman so very, very much and I know that I can. I must have tried the wrong way. Now what other way can I try?"

Just then a little bird flew down to the ground in front of him, and the little bird sang, "Cheer up, Gladheart! Cheer up, Gladheart; you can." And that made him feel better. "I know I can," he repeated; "I know I can." And when he looked again, what do you suppose had happened? There in front of him, where the bird had stood, appeared, instead, a dear little sun-fairy!

"Well, Gladheart, what has been troubling you?" she asked, and her sunny smile made him feel like telling her all about it.

"So you want some sunbeams? Why, of course, my dear. You may have some, just as many as you want."

Gladheart sat up very straight and opened his eyes wide and listened to every word that the fairy was saying.

"Yes, as many as you want," she repeated, "and you will not need to chase after them and try to catch them out of doors, either."

"What?" exclaimed Gladheart. "How will I get them, then?"

"You shall see." With that the little fairy came nearer, and, smiling brightly, she raised her shining wand and touched him lightly on the breast. Gladheart felt a lovely warm glow creep through him, and he tingled all over and felt that every part of him began to sing.

"What—what is it—that makes me feel so warm and happy?" he whispered.

"It is your sheaf of sunbeams," she whispered back. "You have them for always and shall carry them always about with you—right there—in the round tower of your heart."

And when he still wondered, she crept even closer and whispered very softly, "The little round tower of your heart has windows on all sides. See to it, Gladheart, that you keep the windows always open, and let the sunbeams always shine out. They are love rays, and whatever they shine upon grows happier, for they sing a little song that says 'I love you, I love you' to everything. So, wherever you go and whatever you look upon, keep the windows open and tell your little love rays to shine and sing their little song, 'I love you.' The fairy's eyes danced as she spoke.



"There appeared . . . a little sun-fairy!"

"How wonderful!" thought Gladheart, but before his lips could say "thank you" the sun-fairy had gone in a flash. The little prince sat on the rock for a moment longer. "How wonderful," he whispered again.

Then he bounded up and started at once for the little round house. "Shine out, little rays," he said, "shine, shine—oh, I'm going to give you lots of shining to do!" As he drew near to the house, he saw a clump of bright

daisies. "I'll gather them and take them to her," he thought; "they are just like little suns themselves." He had never noticed that before.

Prince Gladheart with his bouquet of daisies stood at the door. As he knocked, he said, "Shine, little rays, shine," and the door opened, just a little way, but wide enough for him to hand in the daisies. He was so busy shining that he did not speak.

A hand reached out and took the daisies, and he heard a faint voice say, "Thank you."

Then Prince Gladheart ran home, the happiest boy in all the world!

When he reached the little round house the next day, something had happened! One of the windows was wide open!

"I'll just tip-toe and leave some daisies on the window-sill," Gladheart thought. And as he did so, he said, "Shine, shine, shine," and the little love rays shone and sang their song. And do you suppose they reached her? Yes, they did.

The next day Gladheart came again with his flowers, and this time something more had happened. Another window was open! So he placed the daisies on the window-sill again and said, "Shine, shine," to the little rays, and they shone and sang their song—and do you suppose they reached her? Yes—they did.

And he came the next day and still the next, and did the same thing, and each time one more window was open—until at last they had all opened. And finally the door, too, stood wide open! And in the doorway Gladheart saw a beautiful young princess!

Prince Gladheart was so astonished he could scarcely speak, but he told the little love beams to shine, and then he managed to ask: "Will you give these flowers to the little old woman who lives in this house?"

The princess smiled happily. "No old woman lives here any more," she said. "I am the only person who has ever lived here, and I hated everything and wanted to live in the dark, but you came day after day with your love rays and your love song and made it all different. The door and windows couldn't stay shut any longer; they had to open wide and let the sunshine in, and now I'm young and happy again."

Prince Gladheart was amazed. "But I thought an old woman lived—" he began, and then suddenly he understood, and did not finish what he was going to say. But he felt happier than he had ever felt before in his life.

"Oh, I'm so glad—so glad!" he cried, "that I let the love rays shine!" He held out the daisies to her. "Won't you take these flowers?"

"Oh, thank you," she said, and she smiled as she took them, and her voice was so soft and sweet that it sounded to him exactly like music.

As Prince Gladheart started back, he felt so happy that he wanted to tell the little sun-fairy all about it. He went again to the big rock and sat quietly waiting for her to come, and, sure enough, after a while there she stood, smiling at him just as before. And he told her all.

Again, the little fairy came very close to him, and she whispered, "The love rays are yours for always. Keep on telling them to shine, and they will do still more wonderful things!"

Then she was gone. But Prince Gladheart never forgot, and ever after it was his greatest joy to fill the heart of everyone he met with sunshine. And even as the little sun-fairy had said, wonderful things happened that filled the world and his own heart with joy.

A Thanksgiving Thought

OF COURSE, Thanksgiving is a day on which to be thankful. And there is no use of preparing a long list of the good things we have. Dear children, all the pages in FARM AND FIRESIDE couldn't hold a list like that.

But can you not help someone else to be thankful? There's teacher! Do you ever worry her until she says, "I'll be thankful when that boy leaves school!" Make her thankful to have you there!

Of course, your parents are always proud of you, but how about helping them to be thankful that their son is such a fine boy!

And the other fellows! Can't you make your school-mates, the neighbors' children, your own brothers and sisters thankful to know such a capital boy as yourself?

We are not always thankful for things we can eat or wear or play with. Sometimes we are thankful for things that can't be bought, nor are ever sold.

What do you think, girls and boys?

An Important Letter from Cousin Sally

DEAR COUSINS—

Such a mail-bag full of letters! I wish I could answer every one of them individually! Wouldn't it be nice?

As it is, I'll just have to write you all a letter and you'll divide it up to suit yourselves. It seems as if most of the letters ask branch-club questions. I am glad to hear that so many of the girls' branch clubs are busy making Christmas presents! Of course, our own page is to publish pictures and descriptions of easy gifts for Cousin Sally club members' clever fingers. Be sure to make a gift for your father and mother. It's the thing which seems to make them happiest of all.

I wonder how many boys' clubs there are wearing Cousin Sally buttons! I should love to hear of a Cousin Sally basketball team or a Cousin Sally football team. Of course, you don't have to say "Cousin Sally" right out, in so many words. You could call it the "C. S. Football Team" or the "C. S. Basketball Team." You see, our colors are blue and white, and you could have splendid times winning from all the teams in the neighborhood, for a "C. S." team couldn't help but win. Now could it, boys?

And next year I'm thinking of such things as a Cousin Sally corn club, a Cousin Sally tomato club and a Cousin Sally poultry club. That's the way to make things interesting, isn't it? And we could offer prizes for the best tomatoes grown and the finest ear of corn and the hen with the best record!

Come, now, boys and girls of the Cousin Sally clubs, and boy and girl readers of FARM AND FIRESIDE, and anyone who is interested, boy or girl! Let me hear what you think of it. And all this winter you can read up the bulletins issued by the government on corn and tomatoes and poultry. And you can close each meeting with a candy-pull or a sled-ride or a coasting party or skating or indoor games or any of the many things that boys and girls like.

Get all the boys and girls in the rural school into your clubs. You know you don't have to subscribe to FARM AND FIRESIDE in order to belong to it. Perhaps the teacher will let you meet once a month after school. Better yet, she may help you plan your meetings.

But, wherever you meet, be sure to have a reason for meeting. If you just want fun, be sure you play games and laugh and really

enjoy it. Don't sit back and look on. When you play, play hard and enjoy your play.

But I want you to work together and play together all this winter. And I want to hear about what you're doing, too. You see, if you don't write me, I can't have any way of knowing.

Therefore, my dear cousins, boys or girls, be sure to keep me informed. You know your Cousin Sally has a big, warm corner in her affection for every girl and boy in the land; and, I must confess, the club girls and boys have a little larger share than any of the others. And remember, I just love to receive your letters!

But the editor man will be saying, "Now, Cousin Sally, don't talk so long and take up so much room!" So I'll close with my kindest love to all of you from

Your affectionate
COUSIN SALLY.

P. S.—Here is a secret I have been holding until I can't keep it any longer. Just listen to this good news! I've just heard of a way by which I can send a lovely set of Thanksgiving post-cards to any of my cousins who will do me a small favor. The post-cards

are beautiful. There are fifty of them. And just think! Some of them are embossed, some are gold-lettered! Some have backgrounds of gold and silver! And there are turkeys, pumpkins and autumn fruits everywhere! And oh, you never saw such beauties! There are so many of your relatives and friends to whom you wish to send Thanksgiving post-cards, and this is your chance to get them. If you want to know all about them and how to get them, write me.

As ever,
COUSIN SALLY.

Cousins Wishing to Correspond

RUTH E. BUNNELL, Northford, Connecticut; Charles Tanner, Pleasant Valley, New York; Ethel Nelson, age 10, Box 160, Grove City, Minnesota; Emma Chadbourne, age 11, Alzada, Montana; Pearl Persinger, R. R. 2, Republic, Kansas; Mary Brotherton, age 13, R. R. 1, Redkey, Indiana; Bertha Ashcraft, R. R. 1, Redkey, Indiana; Dula A. Cook, age 14, Hoskins, Oregon; Esther Porter, age 11, R. R. 1, Almond, Wisconsin; Emma Corbet, age 13, 1414 West Front Street, Grand Island, Nebraska; Minnie Painter, R. 3, Leesburg, Ohio.

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Commencing with this issue, FARM AND FIRESIDE becomes a **Bi-Weekly**. It will be issued hereafter every other Saturday. This important change will bring you twenty-six numbers during the year instead of twenty-four numbers as formerly.

Each number is going to be bigger, better and more interesting than any number published in the past.

For a short time only we are going to give our old FARM AND FIRESIDE subscribers the opportunity to renew their subscriptions at a big reduction from the regular price. You should take advantage of this remarkable opportunity to get the Bi-Weekly FARM AND FIRESIDE at a bargain price.

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Surely you intend to renew your subscription. Then take advantage of this extraordinary **bargain offer** which makes this the biggest subscription value in the whole publishing world.

You will not want to miss a single issue of FARM AND FIRESIDE. Our **Big Christmas Number** and other winter issues will have more and better reading than any other journal.

It will pay you to have your present subscription extended for two or four years at these special prices, even if it does not expire this winter.

Big Departments

Our Big Special Departments will be more practical and interesting than ever before. Every Department is in charge of an authority on that particular line—someone who has had actual and practical experience in that field.

The articles on **Poultry** will be written both from the general farmers' and poultry specialists' standpoints. **The Garden and Orchard** features of the paper will be enlarged. Specialists who are studying soil conditions and prominent farmers who are raising maximum crops will make our **Crops and Soils** Department intensely valuable.

Live-Stock Farming

Farming with live stock is going to receive a whole lot of attention in FARM AND FIRESIDE this year. A single one of our big live-stock articles will be worth a hundred times the subscription price of the paper.

Co-operation—Reducing the unfair profit of the middleman will be the slogan of our next year's work.

The Farmers' Lobby

We are now approaching the **Presidential year**. Our Farmers' Lobby will render more active service this year than ever. We are right on the eve of a most vitally important period in the political history of this country. You cannot afford to miss the **Farmers' Lobby** this year.

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Get two of your neighbors who are not now subscribers to give you 35 cents each for a year's subscription to FARM AND FIRESIDE. Send us the names and 70 cents collected, and we will enter both subscriptions for one year each, and extend your own subscription one full year as a special reward.

Fireside Pages

We shall have better stories, better articles, more practical hints and recipes in these pages, and many of them. The **Fashion Designs** will continue to be made by Miss Gould, the greatest fashion authority of America, and will be sensible and up-to-date.

The **Sunday Reading** in FARM AND FIRESIDE is full of strength and good cheer for every reader. Margaret E. Sangster will continue to talk to our readers through the **Home Interests' Club**.

With all these instructive and entertaining features, you simply cannot afford to be without FARM AND FIRESIDE. It will add immeasurably to the instruction and good cheer of every household. Then be sure to accept one of our Last Chance Offers within the next ten days.

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A new novel by the author of **"Poor Relations"** has been written for FARM AND FIRESIDE. It will start in our next issue. It will grip your interest. You will love the heroine, love to watch her as she trudges along the hard road to happiness, and the hero whose boyhood days were spent on the farm; who is manly, purposeful and sincere. We are surely going to have a treat for you in this story. Be sure to get the November 25th issue, which will contain the first instalment of **"The Road to Happiness."**

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Heard About the Neighborhood'

By Hilda Richmond

At House No. 1

MAMA, there are some children over in the grove, and they want me to come over and play with them," cried a little girl almost breathless as she burst into the house.

"Who are they?" asked the mother.

"Some children from town, Mama. They have brought their lunch with them, and are going to wade and pick flowers."

"Then you can't go! They just want you for what lunch you'd bring. No, you may as well stop teasing. They'd only make fun of you, and I won't have it."

"But, Mama, they are real nice, and they have on old dresses and shoes just like mine. They didn't make fun of me."

"You stay right where you are. I have work for you to do. Town children have nothing to do but gad the streets and play. If their mothers want to encourage them in idleness, they may do so, but I won't have you running with them."

At House No. 2

"Mother, can't we have supper a little early this evening? Our class meets to practice for the class play this evening, and I must be there by seven," said the son and heir of the family, a lad of seventeen.

"What part do you have in the play?" asked the mother.

"Oh, none at all, but I have to help with the stage and such things. I am the stage carpenter."

"Yes, I'll venture to say none of the country scholars would get anything but hard work. I wouldn't run after them and do their dirty work if I were in your place."

"But, Mother, they offered me a place, and I couldn't take it, because I couldn't

spare the time. You know by the time I drive back and forth to school and help with the chores and get my lessons I have very little spare time."

"They only asked you because they knew you couldn't take it. They always look down on country people, but the country people are good enough to do their chores for them."

"Mother, why is it that you and Father send me to town school if you feel like that?"

"Because we want you to have an education and be somebody in the world. We don't want you to have to toil and dig as we have done all our lives to make a living." (And this on a farm of two hundred acres free from debt.) "That is the reason we send you to town school."

At House No. 3

"Mother, Mrs. Easton's niece from the city is visiting her, and if you don't care, I'll ask her over to supper to-morrow evening," said the young lady daughter of the house.

"You can ask her if you want to, but I don't see why you should run after a stuck-up city girl, Anna."

"She isn't a bit stuck up, Mother. I've met her twice, and she seems very nice. She clerks in a store, so she couldn't be very haughty."

"I suppose that's where she gets all her money for frills and feathers. 'Come easy, go easy,' I suppose. I noticed her yesterday in church, and she had a great deal of style for a clerk, it seemed to me."

"Her dress wasn't as expensive as mine, Mama, and she made it herself. It was very pretty, but it was old and not in style a bit. Didn't you notice the sleeves? If you don't want her, I won't ask her."

"Oh, have her if you want her! She'll probably turn up her nose at our old-fashioned ways. No doubt she's used to all sorts of elegance, city people always are, but you can ask her. They never dream of saving a cent. They make good wages, and spend every cent on clothes and amusements. If I had the chance to save money that some of them have, I wouldn't be making butter and raising chickens for town people. I'd be taking life easy."

At House No. 4

"Mother, let me do your hair for you. I've just learned such a pretty new way," said a young girl of sixteen. "There was a lady from town at the picnic, and she had her hair done beautifully, and she didn't have as much as you, either. Please let me try. You'd look so much better if your hair wasn't twisted in such a tight knot."

"Nonsense! I have no time for such things, Mary. Town women have nothing to do but dress up and look pretty, but country women have to work and slave from morning till night."

"Why don't we live in town then, Mama?"

"And be as shiftless as the town women? I guess not! I wouldn't sit around day after day and do nothing for a pretty penny! They just sit and rock and gossip and walk the streets until I really don't see how their husbands stand it. You just let my hair alone! If I get it twisted back out of the way, it's all I expect. People who have to work as hard as country women do have to give up all idea of looking nice."

And the unanswered question still is, "Why do boys and girls leave the farms?"

They are My Neighbor's Turkeys

By Cora A. Matson Dolson

THEY are my neighbor's turkeys
That roam my fields all day,
To reap themselves a harvest
Of buckwheat, corn and hay.

They are my neighbor's turkeys
That seek my yard at night,
And leave my grape-vine arbor
In devastated plight.

They are my neighbor's turkeys
That gobble at a broom,
And from my ripe tomatoes
And peaches rob the bloom.

They are my neighbor's turkeys—
I'm thankful I have none!
So on the jog they keep me
I could not wish for one.

They are my neighbor's turkeys—
Each year the tale is told;
'Twill be for me Thanksgiving
When they are caught and sold.

They've fattened on my produce,
And plump and sleek they look;
They'll fatten, at Thanksgiving,
My neighbor's pocketbook.

A Happy Man

By Grace G. Bostwick

JED PERKINS is th' funn'est chap 'at you'll ever see,
You never hear him tellin' 'bout how pore he feels, an' he
Is all stove up with rheumatiz' so bad 'at he can't walk
Some days, but then he laffs an' sez 'at he kin set an' talk.

Th' weather never bothers Jed; why, when he hears th' rain,
He smiles an' sez, "Say, ain't that fine? My music's come again."

An' when it's cold as blazes, he's as tickled as a child,
An' sez th' days 'at's comin' 'll be jest as nice an' mild.

An' trouble? Well, thet man he's bore most ever' ternal thing;
Th' bank went broke, an' then he lost his farm an' stock thet spring,
An' then his boy he up an' died, th' last one 'at he had,
But Jed he sez, "M'randy's left," an' you never seen him sad.

He can't do much, poor Jed! you know— all crippled-like an' old,
But happy? Did I call him poor? Why, he's got more'n gold;
He's got th' biggest, warmest heart, plum full of sunshine bright,
An' all his neighbors love him 'cause— clean through an' through—he's white.

BE THANK-FULL

FOR THIS CHEER-FULL, HELP-FULL, MONEY-SAVING MESSAGE



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Perhaps you are among the host of good people who are saying at this season, "Yes, we have a lot to be thankful for, but I would be mighty thankful if it didn't cost so much to live. Everything is so high I hardly see what we shall do, another year."

We have a message for every man and woman who is in this frame of mind. We can and will solve this problem for you if you will let us. We have solved it for over 2,000,000 delighted and satisfied customers.

Let us clothe you, feed you, furnish your home and, in fact, supply your every need during the next year. We will do this and save you from twenty to fifty per cent on everything you buy. On next Thanksgiving Day (and probably this Thanksgiving Day, if you hurry) as you carve the turkey and the luscious aroma of freshly baked pumpkin pies reaches you from a busy kitchen, you will wear that "smile that won't come off."

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- 13 Tank Heaters
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- 15 Carpets, Rugs
- 16 Building Plans
- 17 Baby Carriages
- 18 Men's Fur Coats
- 19 Sewing Machines
- 20 Gasoline Engines
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- 22 Building Material
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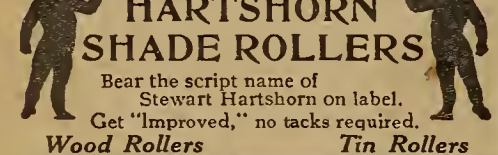


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Thanksgiving Recipes Planned Ahead

When You Stuff the Thanksgiving Turkey

By Berta Hart Nance

Bread Dressing—To every cupful of fine bread-crumbs allow a tablespoonful of butter or of minced salt pork. Season to taste with salt, pepper, or minced parsley, but do not moisten with water or milk. Fill the bird with this, but do not cram so tightly that the bread will have no room to expand in cooking.

Oyster Stuffing—Cut a dozen large oysters into quarters, and mix one white and two yolks of eggs with a cupful and a half of oyster liquor, an even teaspoonful of salt, a half-teaspoonful of pepper, a tablespoonful of chopped parsley and two tablespoonfuls of butter. Add enough finely crumbled bread to give required consistency.

Rich Sausage Stuffing—Cook for five minutes in the frying-pan half a tablespoonful of finely minced onion and one quarter of a cupful of butter. Add one quarter of a pound of sausage-meat, and cook two or three minutes longer. Cook, and mash some sweet potatoes, and add about one and a quarter cupfuls. Season with salt and pepper.

Light Cracker Stuffing—Roll plain crackers very fine, and use two cupfuls; melt half a cupful of butter in one third of a cupful of hot water. Stir these together, and add a quarter of a teaspoonful of salt and the same amount of pepper and a pinch of sage.

Plain Turkey Dressing—Cut into bits light white bread at least a day old, then crumble it fine, mixing in one raw egg and a little melted butter. Season highly with salt and black pepper and one quarter of a teaspoonful of powdered sage. To some people, dressing is not dressing without onion, while others omit the sage, and others use both.

Chestnut Stuffing—Shell one quart of large French chestnuts. Boil them in hot water until the skins are soft, then drain off the water and remove the skins. Return the nuts to the water, and cook until soft enough to rub through a colander. Season to taste with butter, salt and pepper. Stir in finely crumbled bread to give consistency.

Butternut Stuffing—One quart of mashed potato, two quarts of crumbled baker's bread, a cupful and a half of butternut meats, blanched and chopped, a level teaspoonful of salt, a half teaspoonful of pepper, a half cupful of cream and two well-beaten eggs.

Celery Stuffing—Mince a small onion, and fry it in a tablespoonful of butter. Add one

cupful of bread-crumbs, and moisten with the liquor from around the baking turkey. Season with salt and pepper and half a cupful of finely chopped celery.

Desserts

By Beulah Tatum

Mince Pie—For this use the following mince-meat: Two pounds of lean beef, cooked and run through the grinder; two pounds of beef-suet, chopped; four pounds of peeled, chopped raisins; three pounds of sugar; two pounds of whole raisins; two pounds of currants; one pound of citron; one pound of candied lemon-peel; one-half ounce of cloves; one-fourth ounce of mace; one ounce of cinnamon; two grated nutmegs; the juice and grated rind of two oranges and two lemons; one teaspoonful of salt, and one quart of boiled cider. Mix all together, and let come to the boil. Can, and use as needed. Make a rich crust, fill with some of the mince-meat, and bake brown. Serve warm, and be glad that winter has come. As mince-meat dries, more cider should be poured over it from time to time.

The Queen of Pumpkin Pies—Boil pumpkin till soft, and run it through the colander. To each pint of pumpkin add one and one-half pints of rich milk, three well-beaten eggs, one cupful of sugar and two tablespoonfuls of sorghum. Mix one teaspoonful of cinnamon and one-half teaspoonful of ginger with the stewed pumpkin before adding milk. Use a rich crust, and bake until brown. This amount makes three pies. If you want a particularly rich pie, heap high with whipped cream just before serving.

The Thanksgiving Supper

By Beulah Tatum

The good things of the midday meal do not quite fill young stomachs. You must think of something to serve at supper-time. Here are three recipes which seem appropriate:

Cold-Turkey Salad—One cupful of chopped cold turkey; one cupful of chopped celery; two cupfuls of peanuts, ground fine; one cupful of chopped tart apples. Mix well, cover with mayonnaise dressing, and serve at once.

Doughnuts—One tablespoonful of butter in one cupful of sweet milk; add one and one-fourth cupfuls of sugar, two beaten eggs, a little cinnamon, one teaspoonful of baking-powder and a little salt. Flour to make soft dough. Roll one-half inch thick, and fry in deep fat. Roll in powdered sugar.

Nut Gingerbread—One cupful of sugar; one cupful of butter; two eggs; one cupful of sour milk; one cupful of New Orleans molasses; three and one-half cupfuls of sifted flour; one tablespoonful of ginger; one teaspoonful of soda, dissolved in one fourth of a cupful of hot water; one tablespoonful of good vinegar. Beat well together, and then add one cupful of nut-meats (English walnuts or hickory-nuts are best). Bake in one large loaf.

Broken Fragments

[CONTINUED FROM PAGE 20]

Oh, it was beautiful, wonderful! Tears were in her eyes and a great longing and loneliness in her heart.

There was a step on the path behind her. She arose quickly and turned to apologize for her presence, and stood face to face with Kenneth Lambert.

"Catha!" His tone was awed, frightened, as though he feared she were but a vision. "Kenneth,"—she was very pale and trembling—"I didn't know—I didn't know you lived here."

He stood very still for a few moments—the blood had left his face—his eyes sought hers questioningly, pleadingly.

Her eyelids fell, the blood mounted to her face, her lips moved as she said softly, "Kenneth."

He knew she had come back, and in an instant he had taken her in his arms and kissed her cheeks and lips until they forgot their paleness born and bred of the city.

The sun set and the warm April twilight came, and they still sat side by side on the large rock.

"I've learned the city is no place to live," she said. "I'm so sorry I made the trouble; forgive me for breaking our air-castles, and I'll begin to pick up the fragments."

"No need of forgiveness," he pressed her tenderly. "I know now why you wanted to leave the farm. You shall have conveniences and help; we will have social pleasures, and once or twice a year we'll go to the city for two or three weeks."

"I've learned the farm is hard work; also I have learned that it may be a paradise with you."

"And there are no broken fragments of our happiness," she said with a great rapture. "We are happier than we ever were before, and see"—the full moon had just broken over the hill—"our air-castles have been built into a fairy palace and an enchanted orchard and set down upon this flowery hill."

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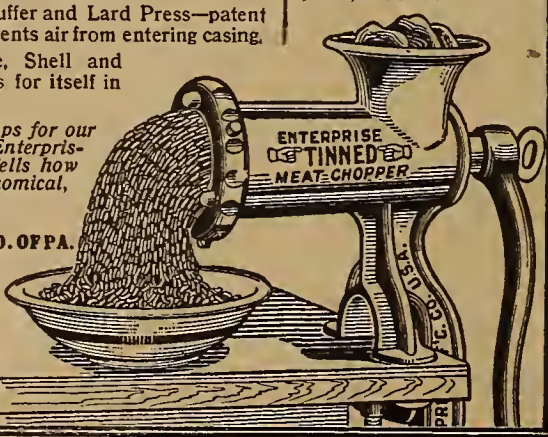
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The Housewife's Club

EDITOR'S NOTE—Monthly we give prizes of \$2.00 for the two best descriptions (with rough sketch) of original, home-made conveniences or labor-saving devices, and \$1.00 for the third best or any that can be used. We also give 25 cents each for helpful kitchen hints and suggestions, also good tested recipes that can be used. We would suggest that you do not send more than two recipes, and not more than five kitchen hints each month, because we receive so many that space will not allow us to print them all, in spite of the fact that they are reliable and practical. All copy must be in by the ninth of December, and must be written in ink, on one side of the paper. Manuscripts should contain not more than 250 words. We would suggest that contributors retain duplicate copy, as no manuscript will be returned. The mail is so heavy that it is impossible for us to acknowledge receipt of manuscripts. Address "The Housewife's Club," care of Farm and Fireside, Springfield, Ohio.

Handy Stirrer

This handy implement is almost as useful in housekeeping as the proverbial hatpin. It can be used in the kitchen and dairy for washing clothes, stirring cream, milk and culinary mixtures, as well as in the orchard for stirring solutions for fruit-trees. In fact, it is one of the most necessary of articles in the farm home. I made one by taking wire, size 6, for a handle, and bending over the top so that it formed a round handle. A tin or copper funnel, which can be made at home, is firmly soldered to the wire. Before soldering, the funnel has three different sizes of holes punched in the lower half. This allows the mixture to circulate around and through the stirrer, as well as giving it an up-and-down motion. The fact that there are no holes in the upper half of the funnel causes a suction, and draws up a certain quantity of the mixture each time the stirrer is lifted. The bottom edge of the stirrer is turned up, so that it will not cut the clothes, and is at the same time strengthened.



F. W. C., Washington.

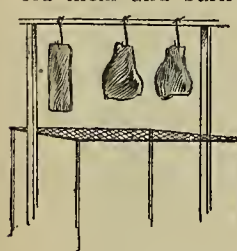
Sea-Foam Fudge

Two cupfuls of light-brown sugar, one cupful of water, the white of one egg, flavoring to taste. Boil sugar and water together until it will mold, but not until it is brittle. Have the white of an egg beaten to a stiff froth, pour the syrup slowly over the egg while beating constantly. Add the flavoring and beat until stiff. Drop in buttered plates from the point of a spoon, giving each a pointed appearance. This is a delicious candy and I also use this for cake-filling, especially for sponge-cake.

L. O. H., Tennessee.

For the Smoke-house

There is always some danger that the hams and sausage will fall from the hooks that or become damaged in the fires built below them. In order to avoid this, I stretch ordinary poultry-netting—that is, four feet wide—from one end of the smokehouse to the other. It is about six inches below the hams. I have saved many a ham and many a link of sausage in this very inexpensive manner.



Mrs. H. F. B., Pennsylvania.

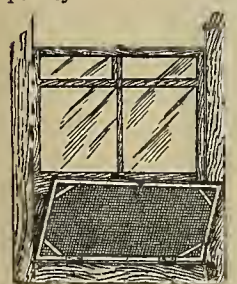
Home-Made Cream-Separator

Take a five-gallon paint-can as soon as the paint is poured out, wipe as clean as possible with dry rags. Pour in a little kerosene, and wipe out with clean rags; then wash it with good suds, and put in a tablespoonful of soda. Pour in plenty, say one-half gallon, of boiling water, and let it stand a few minutes. Now get a tinner to cut a one-inch hole close to the bottom of right-hand lower corner and put a cuff around this. Fit a good cork into this, strain in warm milk, set on small slats in bottom of tub of ice or cold water. In three or four hours the cream will rise to the top. To prevent dust on the cream, cover all vessels with wet cloths.

Mrs. N. F., Tennessee.

Ideal Ventilation Screen

In these days when the value of fresh air in sleeping-rooms is being talked of and realized by so many the following device should be of interest. The idea will appeal to those who like plenty of air in their sleeping-rooms but cannot stand the direct draft caused by having a window wide open. Make a frame of light pine strips one by two inches, just large enough to fit inside the window-casing close up to the sash. Over this frame tack light-weight muslin securely, and nail short strips diagonally across the corners to hold it firmly in place. Fasten this screen in place so as to deflect the wind from the bed, using two hinges, as shown in the diagram. Fix the stops of the window so as to allow its being lowered from the top as well as raised from the bottom, and this will give the necessary current of air. So as to hold the screen firmly when open, take a stout wire and bend to form a hook at each end, as shown in the illustration, and place a staple in the window-casing and one on the frame of the screen. By means of this hook the screen will be held firmly when open, and by placing a small bolt on the screen, just below the hook, it will be held tightly shut when closed. On very stormy nights the screen may be closed and yet it will admit considerable fresh air. The use of this screen is a very simple



and practical way to solve the fresh-air problem for a sleeping-room. Mrs. G. A. D., New York.

Home-Made Lantern

Sometimes an extra lantern is needed and no time can be found to go to the store to buy one. If you have a tin pail or a large can, you can easily make one yourself. Put a bail on one side of the tin pail or can, and make a hole in the side directly opposite it by cutting two slits at right angles to each other and bending in the corners. Insert a candle in the slits and you have a very handy lantern. Peary mentions such a lantern in speaking of his Arctic travels. A member of his last expedition to the Polar regions made just such a lantern and found it very useful during the long Polar nights.



CUT FOR CANDLE SEND ON DOTTED LINE

J. L., Idaho.

To Clean a Silk Dress

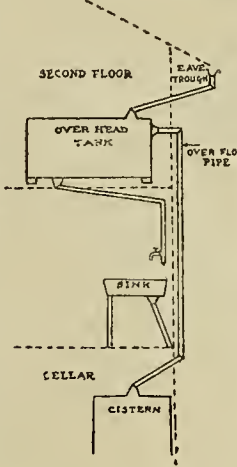
Many of our readers will be pleased to learn a new method of cleaning soiled silk dresses or fine fabrics of various descriptions. I had a brown silk dress which I had worn until it became somewhat soiled. I could have had it cleaned at a shop for \$2.50, but I decided I would clean it more cheaply myself. So I purchased a ten-cent bottle of washing ammonia and went to work. This is the method: Dampen a soft cloth with the ammonia, and lightly sponge the goods with it. Do not scour it, but simply move the cloth back and forth lightly, and I assure you it will remove all spots and brighten the appearance of the garment. I use this in preference to gasoline or benzine, as it is not only cheaper, but safer.

A. A. D., Ohio.

The Handy Water-Tank

They were not large, house which proved satisfactory to a small family. My greatest help was the overhead tank. It is four feet square and twenty-eight inches high. It is made of galvanized iron and placed in a room on the second floor, over the kitchen sink. There is an iron pipe from the bottom, running through the floor and finished with a faucet directly over the kitchen sink. On the upper side and out of the house is provided an overflow pipe which runs into the cistern in the cellar. The sink is provided with drain-pipe. This tank holds about seven barrels of water and cost seven dollars. The pipe, fittings and faucet cost one dollar and fifty cents. The waste-pipe cost one dollar and fifty cents. Over and over again this amount has been saved in time and strength.

Mrs. J. U., New York.



Oil-Cloth for Pantry Shelves

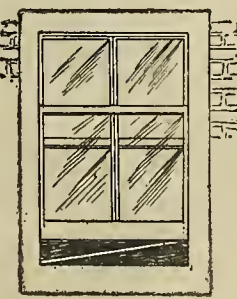
Take light oil-cloth, cut the size of the shelves, allowing enough to cover the front and slightly underneath. Make paste the same as for wall-paper, and paste the oil-cloth to shelves. This is easily kept clean and will last for years. I put it on my kitchen table in the same way.

L. E. S., Illinois.

Adjustable Window-Stick

This is intended for a house in which there are no weights to assist in raising the window-sashes or keeping them raised. The stick should be cut three eighths of an inch longer than the width of the window. It should be made of stout wood, so that the weight of the window will not break it. Holes are bored into the window-casing at various heights, so that the window can be raised or lowered and leave it open at any space desired.

F. A. A., Washington.



To Save Eggs

When a cake recipe calls for two eggs and eggs are scarce and high, use one egg, and sift one tablespoonful of corn-starch with the flour.

M. L. S., Illinois.

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Never sun feather beds. Air them on a windy day. The sun draws the oil and gives the feathers a rancid odor.

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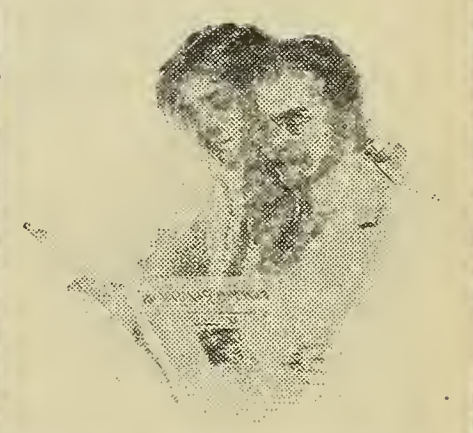
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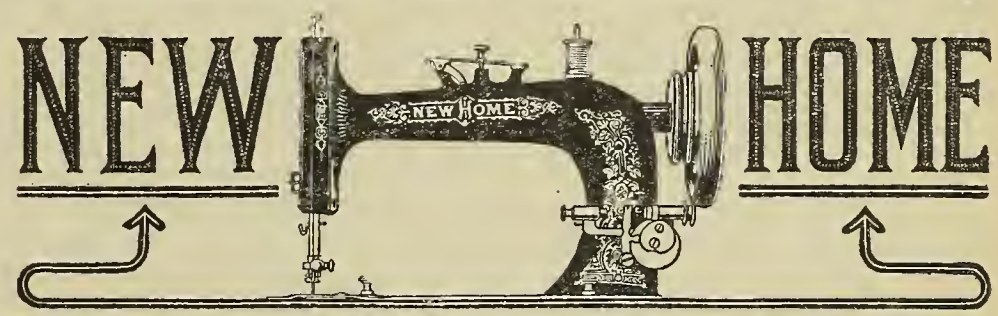
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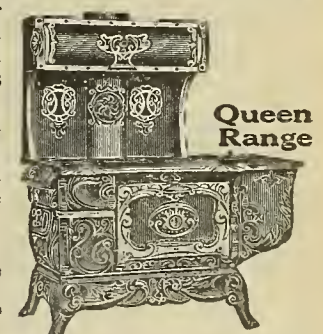
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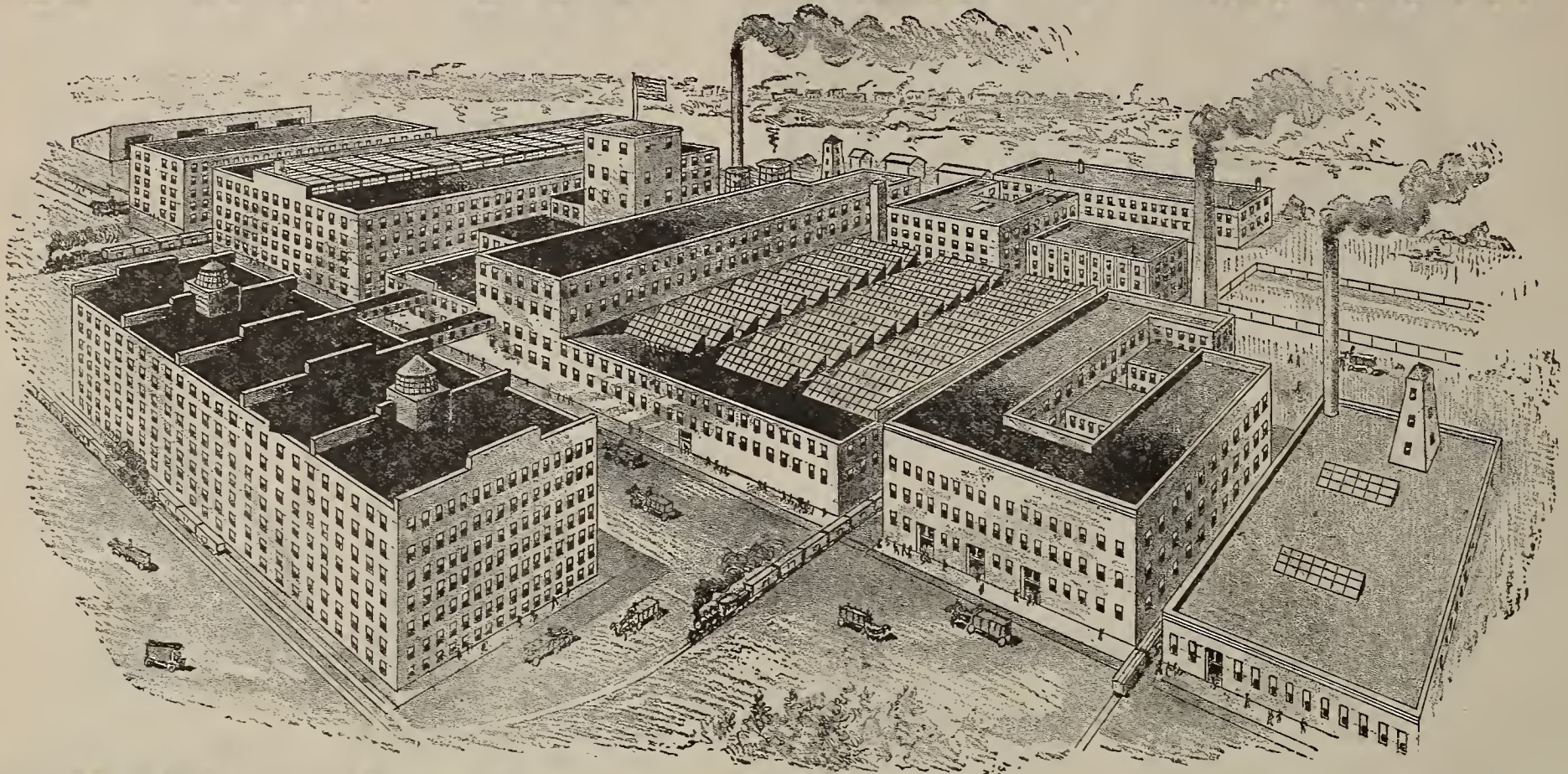


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In 1910 we shipped to "BALL-BAND" dealers 1,030 carloads of finished footwear. The shipments would make a train similar to the above, solidly enclosing 2,500 acres.

It required 5,000,000 square yards of sheetings, cotton duck, cashmerette, wool linings, etc., to make these goods—enough cloth to cover 1,033 acres completely.

We spun one and a quarter billion yards of yarn for knit boots, lumbermen's sox, etc.—almost enough to form three strands from the earth to the moon.

FORTY acres of floor space are occupied by the factories of the Mishawaka Woolen Manufacturing Company, makers of "BALL-BAND" Rubber and Woolen Footwear.

1,030 carloads—a solid train eight miles long—were required to supply "BALL-BAND" buyers last year. More than eight million people wear "BALL-BAND" footwear.

This enormous demand represents a steady growth of nearly a quarter of a century, from small beginnings.

The business of the Mishawaka Woolen Manufacturing Company originated in the manufacture of All-Knit Wool Boots and Socks. As the business grew the company could neither obtain the quantity nor the quality of rubber goods which had to be supplied with its woolen footwear.

The company therefore went into the manufacture of its own rubber footwear. The result was "BALL-BAND," which has become famous wherever heavy footwear is worn.

There was large competition then, as there is now. We realized that to succeed with rubber footwear we must make our product a little bit better than the best rubber footwear on the market, and **keep on** making it better.

In all the years this company has not, nor will it ever cheapen the quality of its goods to meet competition. On this principle this great factory has been built and the patronage of more than eight million people has been established, through the forty-five thousand dealers who handle "BALL-BAND."

The factory, the Home of Quality which has built this business, is behind every article of "BALL-BAND" footwear sold. To maintain "BALL-BAND" quality, and make it even better whenever possible, we put in **one million dollars extra value every year**, that otherwise might be saved as clear profit.

Look for the **Red Ball** sign when you go to buy rubber footwear. Many dealers display these signs in their windows or store fronts for the guidance of the constantly increasing number who are asking about "BALL-BAND." Whether you see the sign or not, you are sure to find the **Red Ball** trade-mark on all "BALL-BAND" goods. Insist on it. It is your protection.

Footwear merchants in all parts of the country, sell "BALL-BAND" goods. If your dealer cannot supply you, write us, mentioning his name, and we will see that you are fitted.

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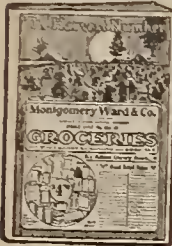
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With the Editor

I 'VE been talking with every expert in the lumber business I could scrape an acquaintance with for five years, trying to find out why lumber is so high. My search has put me in touch with chief foresters of the United States, assistant foresters, forest laboratory experts, conservationists, state foresters, forest-rangers, lumber-dealers, both wholesale and retail, heads of state conservation commissions, sawmill-men, timber-owners, traveling salesmen and just plain men.

I believe I have got at the truth. Perhaps everybody knows it, but I don't believe they do, so I'm going to tell you about it.

First: There is no trust or combine in the manufacture of lumber. The sawmill-men, East and West, North and South, are competing with each other fiercely. At this time they are, most of them, making small profits or none. It is becoming a proverb among sawmill-men that the ones who are not running are lucky. Some have to run, because they have debts to pay, or stock to pay dividends on. Some have to saw burnt timber before it rots. Altogether, while cutting up the trees, they are cutting each other's throats in the effort to get business.

At the Conservation Congress at Kansas City a great lumber-manufacturer spoke. His first plea was for religion, his second was for some change in the laws which would allow lumber-producers to get together and fix prices high enough, so it would be rendered profitable to use up more of the trees than they now utilize! He asserted that twenty per cent. of the timber is left in the woods, because it only pays to saw the good cuts. In the interests of conservation, he pleaded for the legal right to form a sawmill trust.

If he had closed his religio-predatory speech by saying "Let us—" I wouldn't have known for the life of me whether to spell the last word "p-r-a-y" or "p-r-e-y." But he told the truth. I feel sure, when he said that there is no combination to fix prices among the mills.

Weyerhaeusers, Hineses, and their ilk, own enormous forests which will make a sawing trust one of these days, but not until the small fry have killed each other off by competition and forest slaughter.

The combine is in the retail field. The lumber-yards almost everywhere are in a practical combination to boost and maintain prices. A Spokane manufacturer told me that he once followed a car-load of lumber sold by him at \$16 per thousand, and saw it loaded on farmers' wagons in North Dakota at \$32.

"Why don't you establish yards of your own?" I asked.
"I'm a peaceful man," said he, "and I want to live. Go against those disciples of the Black Cat, the retailers? Not I."

And yet this man saws 200,000 feet a day, and one would think him above any ordinary threat, or the fear of it.

A business man of my acquaintance had a big shed to build, some years ago, in a Nebraska town, and asked a friend who owned a yard to make him prices on the lumber.

"Wait till next month, Jim," said the lumberman, "and I'll do it."

"But I want to start to-morrow!" said Jim. "Why wait?"

"Well, you take a fool's advice," persisted his Black Cat friend, "and wait till next month."

Something in his friend's manner impressed Jim, and he waited until the next month and got fair prices. Being possessed of much curiosity, he finally learned the secret of this puzzling demand for delay. The two yards had an agreement that they would divide business according to the letters of the alphabet, with which the customers' names began. Jim Smith belonged to the other fellow that month, because of the "S." They changed sets of letters the first of every month, so that the next month Jim "belonged" to his friend. This arrangement applied to all "figuring" on bills.

This was years ago. Now the yards have schemes that beat the alphabet scheme hollow.

I heard of a wholesale lumber-dealer in Wisconsin who sent his brother-in-law a couple of car-loads of lumber for a barn. All at once he found his business gone. There wasn't a lumber-yard in the United States which would buy of him. He had to make terms with the gentlemen of the Society of the Black Cat, or face ruin.

Of course, the mills are farther away from most of us than they used to be, owing to the cutting of the near-by forests. This makes freights higher. But it doesn't justify the prices. The Lumber Trust is to be looked for in the combination among the yards, the yards in your own town. The ones owned by the fellows who are so friendly when you go to the village. Here's hoping the Department of Justice gets some of them!

There are, say, five million farmers in this country, all of whom are users of lumber every year. Every one of them is robbed every year by this combine of combines of lumber-yards. By the simple method of establishing coöperative lumber and fuel yards, connection could be established between mills and consumers, and all this robbery be avoided. Why not? Everybody combines but the farmer—and he is beginning.

And the farmer has been told this over and over for a generation. Farmers abroad are awake. How long will the American farmer sleep?

THE American Society of Equity was once known by its slogan of "dollar wheat." The fact that wheat went above a dollar may or may not have been connected with the holding-back movement so largely engineered by the A. S. of E. In any case, the real service of that organization has been missionary rather than definitive.

The gospel of the A. S. of E. was and is the gospel of coöperation—that gospel so successfully taught by the immense coöperative mercantile establishments of England, the mutual-help organizations of Ireland and the redemptive rural associations of Denmark.

The time for missionary work is not yet over in America. Indeed, it is hardly begun; but what is most needed is the missionary power of the example of successful coöperation, and the telling of it to the world. The United States is full of instances of successful coöperation. The American Society of Equity seems to have taken for its peculiar field the fostering of the coöperative movement. The field needs specialists. It is hoped that this great organization is about to enter upon a new growth, with more exact plans based largely on the Rochdale experience, and theories better thought out than ever. President Barrett of the Farmers' Union says, "The next great sphere of development is in applying the doctrine of coöperation." No greater or better task can be entered upon than that which seems to lie before each of these societies. In following it they deserve well of the farmers of the nation.

Robert S. Sikes

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BI-WEEKLY

Every farmer ought to have a specialty of some kind in which he excels in his neighborhood—not for a season only, but year after year, so that it will be said of him: He has the cleanest yards, or orchard, or field; the straightest corn-rows; the whitest fences; the layingest hens; the loveliest flowers; the coolest shade; the politest children; the most papers, or magazines, or books—the best of something.

National Federation

WE ARE inclined to think that the farmers of the nation will be likely to act in a body exactly in proportion to the extent to which they act together locally. National federation, when it comes, is likely to result from the federation of existing bodies, rather than in the formation of some great new body. So it has been in Denmark, Germany and other foreign countries. So it has been with the great Federation of Women's Clubs. Such a federation is a chain of which each link is formed as a unit, and then all the links fastened together. Such a policy may not be possible in blacksmithing, but it is necessary in human federation.

The American Society of Equity last year moved in the direction of a national federation of farm organizations. A committee on federation was appointed, the members of which are D. A. Mahoney of Viroqua, Wisconsin; T. T. Barrett of Henderson, Kentucky, and T. G. Nelson of Chicago. The plan was to get other organizations to appoint similar committees, and all to meet in Chicago some time next February. President C. S. Barrett of the Farmers' Union is on record as favoring such federation and, as we understand the matter, such a meeting. Mr. R. MacKenzie of the Manitoba Grain-Growers' Association has expressed himself as being "only too glad" to cooperate. With these three forces working to the same end, there should be no doubt of a meeting out of which great results might flow. Probably the State Granges will give their powerful aid. Every independent cooperative organization should get in line if possible. There are links enough ready forged to make a powerful chain—powerful for good.

In storing any product, if you will allow the first five or six inch layer of dirt to freeze pretty near to it and then cover this to a depth of about one foot, you will have approached perfection in the art of storage.

Why Halt at Spuds?

MAYOR SHANK of Indianapolis bought potatoes and sold them at cost, thereby breaking up a food trust—in potatoes. Mayor Hanna of Des Moines followed suit. But why stop with potatoes? Man cannot live by spuds alone. And must that city suffer whose mayor lacks the sand, or initiative, or credit which is necessary for the feat performed by their honors of Indianapolis and Des Moines? Must this thing stop with potatoes and at the grand-stand, sensational-play stage, or are Hanna and Shank the avatars of a new era in which the city will see to it that food is sold to the citizens by direct transfer from producer to consumer?

Do not these incidents show a great popular demand for municipal cure of the waste of multiplied middlemen? If so, they are the precursors of a revolution most important to us all.

A poor saver lays up want.

Cut freight-rates by keeping your highway in good condition.

If the floor of your horse's stall be made of bricks, see that they be not bricks without straw.

Reliable Commission Men

SOME of our readers may have forgotten FARM AND FIRESIDE Commission House Service. If you want the address of reliable commission men in any town, we can furnish the names. There are plenty of reliable houses. We will not guarantee transactions with any firms except our advertisers; but the firms whose names we send will be carefully selected, will be establishments which possess financial responsibility, and which are known to be in the habit of treating shippers fairly. We think we can keep you from falling into the hands of the thieves.

Watch Their Votes Next Time

TESTIMONY in both the Stephenson and Lorimer cases alleged of senatorial bribery tends to show that Mr. Edward Hines, the "lumber king," said: "I'm having an awful time. There is Stephenson voting for free lumber, and after I elected him, too. I've had a terrible time getting him lined up. It also seems hard to get

large coast-to-coast commerce which by law must go under the American flag. We shall thus restore our merchant marine to the seas without any ship subsidy and we shall get freight-rates on transcontinental shipments cut in two.

To producers, this would seem a businesslike use of an outlay which otherwise is likely to be pretty close to a total loss. What do you think about it?

Farmers and the Show Ring

WHEN you go to the fat-stock show, you are always surprised at the perfect lines of the animals shown. The bullocks have backs as straight as a board's edge; the sheep are just the shape of the ideal sheep of the breeder's imagination.

You go away in admiration of the breeders who can produce such miracles, and despair at the thought that neither on your farm nor any of the farms of which you know, are such beasts produced. No matter how pure may be their breeding, your steers, no matter how carefully fed, have little depressions in their backs, and your lambs will be just a trifle off when it comes to fitting into the ideal mold. And, paraphrasing Cassius, you soliloquize, "Upon what feed hath these our marvels fed that they are grown so straight?"

Let us whisper in your ear, most innocent farmer, the secret of it. Those lambs at the fat-stock show are perfect as to the outlines of their wool; but none of them have forms that follow the same lines. Their hollows are filled with wool. They are the finest lambs in the world, perhaps, but not as fine as they look.

And those steers had depressions in their backs, too, the same as yours (your steers, we mean)—maybe not so pronounced, but depressions all the same—the experts call them "ties," perhaps because they resemble the creases in a bale where the tie goes around.

Now when you have a fat steer with a "tie" showing on his back, you have to leave it so; but the expert cattle showman inserts a knife under the hide at the "tie," loosens it up very skilfully, and then, when the spot is properly bandaged and treated for ten days or so, the bullock goes to the show with a back like a straight-edge.

Of course these things are not honest. They are tricks. They make one feel as did the Indian who tried to scalp a victim who wore a wig. As the false hair came off in his hand, the noble red man ejaculated, "Damn lie!" Can such charlatanism do the cause of fine breeding anything but harm? It certainly puts the "honest farmer" out of the competition.

How Does Your Garden Grow?

EVERY day's food is affected—or should be—by the success or failure of the farm garden. A good garden makes a good table. "Like a garden" is the phrase expressive of perfect tilth. A good garden is therefore an unfailing sign that someone about the place knows what good farming is—on a small scale, at least. Many a farm garden is the family demonstration plot, out of which grow progress and prosperity as well as pottage.

We should like to hear from some of those of our readers who shine in gardening. Let them give us a plan for the planting of, say, a third of an acre so as to get the most out of it. A plan means a plan—either drawn or described—with rotations, both year-after-year and crop-after-crop in a single year. We hope they won't forget fertilizers, either. Out of the countless experiences of our readers, we should get the data which ought to make all our gardens better next summer. Those we use, we shall pay for, of course.

Come, let's do a little winter gardening—with our pens.



A vision of the city

those Southern Democrats in line." To be sure, this conversation is denied; but the record shows that Stephenson changed front on lumber for some cause and that some Southern Democrats "lined up" for a duty on lumber. Interesting, anyhow, isn't it? And it may be interesting to watch the votes in the next Congress.

Will they be "lined up" again? And does the astounding situation revealed in these investigations mean anything to you with reference to popular election of United States senators?

A Toll-Free Canal

THE Cincinnati Chamber of Commerce has begun a campaign under the slogan "The Panama Canal should be as free as the Ohio River." This paper was one of the first, if not the first, to point out the advantages of a toll-free canal. The nation will spend a huge sum for the canal, and many will say that we should receive some tolls as interest. But they forget that we have spent the money for public benefits, and not for interest. There is doubt as to the canal's being much used, if tolls of any consequence are charged for passage through it: so that our ability to make it earn interest is very doubtful. If we charge tolls, we shall probably fail to get much interest, and we shall get small public benefits or none. If we make the canal toll-free, we shall get no interest, it is true; but we shall build up a

The Farmer: His Ancestors and Descendants

By Arthur Hawkes

I AM puzzled as to whether I am my own ancestor, or my own descendant. I have lost the right to be called a farmer, and don't know whether my present self belongs chiefly to what I do and think every day in an office, surrounded by all the appliances of city life, or whether, though I have changed since I plowed and sowed and reaped and mowed, the strongest thing in me is the combination of heredity and experience, and the point of view of the soil, from whence I came. On the whole, I think the ancestor has it.

Let me put what I mean in another way: I have a friend who was brought up of the straightest of the sect a Methodist. He is a great journalist, with a mind that seems to have a mortgage on all the future; and that,

for he didn't speak out loud. The more you think of posterity, the more you think of yourself. Posterity seems a long way off. So does eternity. But this moment is part of eternity. The laughing baby who totters to your knee is posterity not once removed.

What, then, are the prospects of a reversal of the farmer's estate in the world? When will the undeveloped Cincinnati come into their own? Colleges? Yes, but not of the kind that permit their alumni to think that they are better than their fathers. Prominence in city life? Yes, for there must be fetchers and carriers for agriculture; no, if it is to be believed that the street is greater than the farm.

Let me draw a little from my own experience on the farm in western Canada, with the aid of a little of the condescending irritant fertilizer that one occasionally receives from the newspapers. Here is a provoking phrase from the last editorial I read: "The practical aid given to the farmers by the various governments."

Now, in western Canada the farmers are the governments, though they have a surprising facility in delegating the governing to lawyers, doctors, newspaper men and such like people. To talk of aid "given" by governments is about as wise as to talk of goods "given" by the storekeeper to the housewife. Be sure the farmer gets nothing from any government unless he has first furnished the "gift." In Saskatchewan and Alberta the wide-awake farmer, especially if he has come from the United States, does so well with his twenty-five, thirty and forty bushel crops of wheat that sometimes he does not anticipate the permanent results of his pioneering—

that on the farm, where he has made the virgin soil work for him, uncounted posterities must live and flourish by methods that must be as scientific as now they are simple, and that the lure of the city must be outwitted by the fascinations of the farm. But great progress is being made to that end. The governments of all three prairie provinces have telephone departments. In Saskatchewan, for example, the government will furnish and erect the poles for farmers who will



"The farmers are the government"

provide wires and apparatus. The farmer around Saskatoon can sell to his wheat-buyer in Winnipeg without leaving home. Again, at Saskatoon, the agricultural department of the university has twelve hundred acres dedicated to experimental cultivation—the other end of the policy which, thirty years ago, reserved two square miles of lands in each township for school purposes.

The Dominion Government Experimental Farm at Indian Head fully supplies the farmer with all the seedling trees he wants, and with an inspector to show the best way to set out wind-breaks and groves. Seed contests provoke to the best handling of the soil; lectures on live stock induce pride in fine animals. On the farmers' side, there is a spreading grain-growers' association, which has fructified in its own grain company, which handles more grain in commission than any other firm, and in which no man can hold more than four shares of twenty-five dollars each.

Seven years ago, the Saskatchewan, as a grain-growing country, was scarcely heard of. Now it annually produces over eighty million bushels of wheat. I know trunk telephone lines where, seven years ago, there was not a solitary breaking-plow. How speedy and how effectual is the march of the farmer to affluent power compared with his movements when we were children! Is the farmer coming into his own? Could his ancestors recognize his descendants? Does he recognize his own prospects and his responsibilities?

The Farmers of the Future

By Eric C. Matthews

WE READ almost daily how the farmer boys are going to the city. Why is this? The answer is simple: their interest is centered in the city. The city is growing, improving, and offering new fields for talent; while the farm is, in many cases, just what it was twenty years ago.

What would you think of a large city with no automobiles, electric lights, telephones and other modern conveniences? You would say it was twenty-five years behind the times, and did not deserve the name, city.

Now there are many farms in practically the same condition they were in a quarter of a century ago. Do they deserve the name, farm? Do their proprietors deserve the name, farmers?

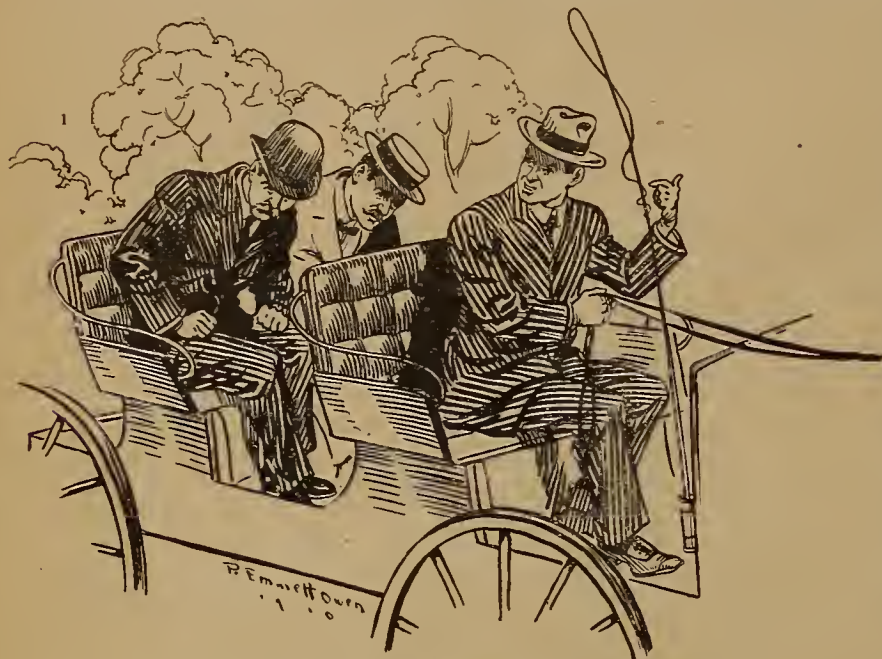
The boy must be interested in the farm, or he will not become a farmer. The sons of successful farmers seldom go to the city to live. It is the boy who does not know that farming can be a pleasant, interesting and profitable work who goes to the city.

Get the boy interested. Give him a horse, a cow; give him a share in the crop, or the income from the cows. Milking a few cows is a regular "mortgage-lifter"; but don't try to run a dairy and a farm at the same time.

And another thing; do not neglect to improve the farmhouse, barns, etc. Every farmhouse should contain a telephone, a piano or organ, good furniture and kitchen utensils. And the house should be well heated, lighted and ventilated. Where it is possible, the house should contain a hot-and-cold water system and a bathroom. Have regular hours for rising and meals. Five-o'clock rising is early enough. Get your milking over before six. If you eat breakfast at six, you will have a good, long day to work in. Give the boys an hour's noon; quit the field early in the evening, and get the milking over before six o'clock. Then let the boys spend the hour or two they have before bedtime with their friends, or with the books and papers at home.

Give the boy an education; send him to school; encourage him to get a good, practical education. Don't say, "I never had a chance to get an education, and he doesn't need one." I have heard people say that. Why, I know a man who takes the seats off his farming implements, simply because he says, "I had to walk when I was a boy, and my boys are no better than me." Don't look at it this way, everything is improving, and THE FARM MUST IMPROVE. Keep the farm at its highest point of production; make every acre yield its best; keep the fences, buildings and implements in good shape, and don't forget to use the manure-spreader. Subscribe for some good farm papers, and keep a supply of good books for the boy to read.

If the farmers will use system and strive to improve the farm in all directions, we need not worry about where "The Farmers of the Future" will come from.



"Every mother's son of them ducked his head"

to those who do not know its beginnings, appears to be as far removed from the creed in which he was brought up as the east is from the west. But his practice has the rigid adherence to a fine sense of right, and nobility in all the relations of life as the strictest Methodist could desire. His finest writing is suffused with Biblical lore, and is redolent of early teaching in the ingle-nook of a venerable farmhouse, away across the ocean. He does not teach Methodist doctrine to his children, but he glories in having been reared a Methodist.

Again; you remember the David Harum story of how, when "Low bridge" was called, in a company of Eastern millionaires, every mother's son of them ducked his head.

The Strength of the Farmer

Some day I hope to enjoy communion with the Society of the Cincinnati, the organization which specially commemorates the successful fight made by the farmers of thirteen colonies against the mistaken imperial power, whose most notable product they were. And, if I could conjure up the spirits of just men made perfect, I would find out all that it is possible to know of the mind and conduct of Cincinnati, the emperor who was called from the plow to save Rome, and who, having saved the state, returned to his farm to enjoy the peace and blessed exhilaration which forum and council chamber and stepped throne can never supply.

Of all men the farmer has least known his strength. He has seemed, from the beginning, to love subjection rather than dominion. When it was desired to limn the descendant impotence of our kind, the man with the hoe was selected for a description that has all the dread realism of a heaving graveyard.

We live by what we extract from the soil. It has been the fashion to glorify God for seed-time and increase, to liken heaven to a perpetual harvest-home, and to despise the hand that planted the seed and plucked the full corn in the ear. The harvestman was a creation of the tenant, the tenant was the humble servant of the landlord, the landlord was rich with the rent that came from the hind's toil, and carried his head as though Divine Right dwelt in his neck. The nearer to nature, which is God, a man worked, the less was he esteemed by his fellows.

The burden of the farmer's ancestry, even on this continent, has been, and still is, to him an oppression from which, in the main, he has only weakly tried to emancipate himself. Agriculture has always been the greatest of industries. It has always been regarded as the least of sciences. It has been measured by the meanest of its tasks, instead of by the noblest of its results. Which is wrong, for agriculture is the very life of all the nations in the earth.

We didn't make our ancestors, who are entitled to rest undisturbed. We have something to say about our descendants. It wasn't a farmer who asked, "What has posterity done for me?" It was a lineal descendant of the person who said, "There is no God;" a person who was not so foolish as his successor,



The man with the hoe

Back to the Land

By J. A. Rowland

BACK to the farm, my friend, let us go. Back where the real, true flowers grow. We're rested and kept from a load of care, 'Way back on the farm with its redolent air. Let us go back to the farm, I say, Breathing the scent of the new-mown hay. There we shall rise from an old-time bed, With never a sign of an aching head: There we may wash and sputter and spurt, With never a care for our linen shirt. Let us, my friend, of the farm life preach, Secluded and free from the city's reach, Riding a plow o'er the fertile fields, Blessed when we know what the harvest yields; Garnering acres of golden grain, Pleased with the song of the laden wain, Well knowing that plenty shall fill the land, And blessing attend us on every hand.

Let us go back to the farm, my boy, We're tired to death of the town's dead joy. Weary of watching and helpless and poor, Of smoke and soot and the city's roar; Tired of the things that seem to be, And sick of the stunts of Charity. Let us go back to the farm, by jing; Back where the sweet-voiced songsters sing. Back where the wild flowers richly grow, Back where the sparkling waters flow, Back where the sons of nature plod, Alone with Earth's mother and nature's God.



Selling wheat without leaving home

Where Shetland Ponies Pay

By C. G. Phillips



OUR Oregon farm, known as Pleasant View Pony Farm, keeps on an average of one hundred head of Shetland ponies the year around, and it has never cost over \$500 a year to keep the entire herd.

The cost depends on the weather. Should the winter be one of deep snow, then the cost will be greater, as the ponies must have some hay or corn-fodder to tide them over the periods of deep snow, when they cannot get grass in sufficient quantities.

One winter, which was very open, the ponies ran on a one-hundred-and-fifty-acre farm which had been allowed to grow up all summer to grass and weeds. The cost for the year's keep of the one hundred head was only \$200.

The Cost of Feeding

One can get ponies pastured by the head for about the same as sheep, ten cents per week; so, if one were to hire the pasture by the week for thirty weeks, it would cost only \$3. Then it is best to keep them up in the stable during the winter months, and feed each one a pint of grain twice a day. With oats at thirty-five cents a bushel, the total expense would not run over \$6 or \$7 per head for the entire year. Thus it will be seen that Shetland ponies are a profitable line of live stock. They have the advantage of most other breeds of stock, for they will do well on either mountain rocks and rills or swampy, low lands where it is not safe or profitable to turn other stock. As long as there is plenty of grass of any kind, it matters not the condition of the ground to them. They will stand more hardships, when it comes to bad weather and bad pasture, than any other line of domestic stock, for their native country, the Shetland Islands, is a bleak, barren country, and nature has taught the generations to stand hardships. Yet they respond to good treatment much more quickly than stock that has been reared to good care.

Can you find anything in the horse line less expensive than a weanling colt? Take him for the first six months, and he has run with the mare and has cost practically nothing. Then wean him, and keep him on a grain ration of one-half pint of oats and one-half pint of bran, mixed, for the next six months, and the amount of hay which he will eat is so small it is scarcely worth while to mention it. In the spring, at one year of age, he is old enough to sell, and sells very readily (if he be a good one and registered) at \$125. That is about \$120 clear profit in one year's time on an investment of \$150 or \$175, the cost of the mother, and about \$5 per year for her keep.

Very frequently we sell the baby colts at weaning-time, six months old, for \$100 each. If you want to keep them till they become older and more matured, they, of course, increase in price. The two-year-olds bring \$150 to \$175, and three-year-olds, up to \$250 and \$300. And, of course, there are a lot of fancy prices that run up as high as \$500 and \$1,000, but I am giving figures here that anyone can prove who starts in raising good, registered Shetland ponies.

The writer has tried all kinds of live stock—horses, cattle, hogs, sheep, goats and dogs—and has found by actual experience that the Shetland pony has them all beat in profit, care, healthfulness, ready sales, ease of breaking and long life. One mare will frequently bear from fifteen to twenty colts.

Shetland ponies can be used for driving and working. In Ohio, there is a farm of forty acres on which the work is done by four Shetlands; only the plowing and harrowing being done by large horses, and the owner

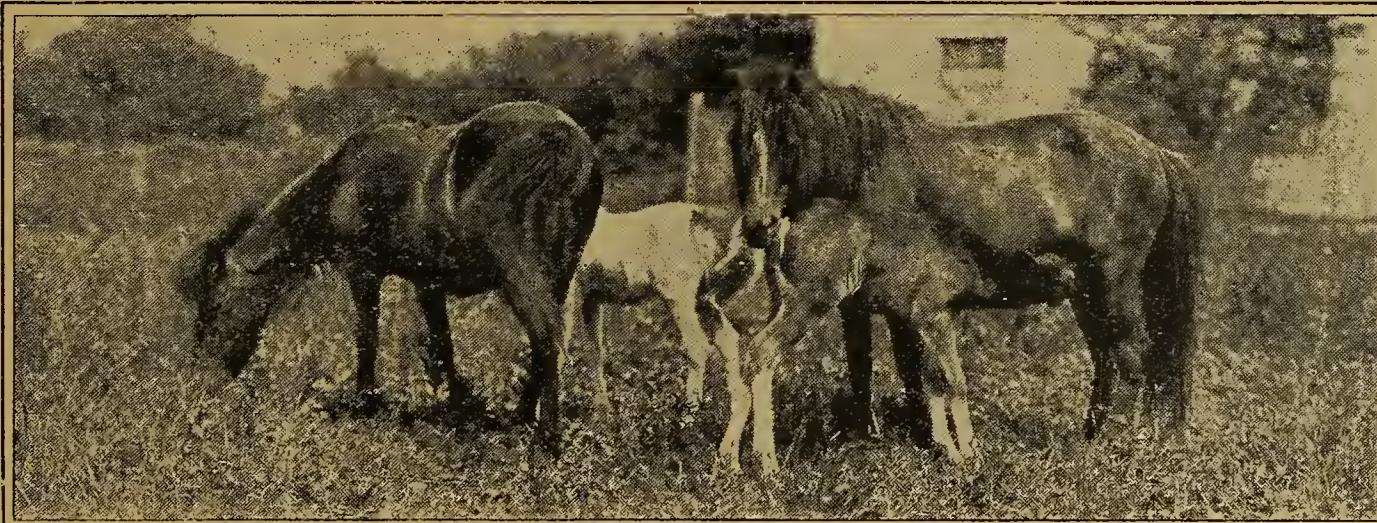
is authority for the statement that the little fellows keep fat and rugged while performing their part of the farm work.

A forty or forty-two inch Shetland will do all the family errands about town just as easily and as satisfactorily as a one-thousand-pound horse. These little pets have endless pluck and endurance, and a number of them are fast trotters. One little mare recently trotted four miles in sixteen minutes, and nine miles in forty-three minutes, drawing one person. This is no mean performance for much larger animals.

One of the theatrical troupes now on the road uses four Shetland ponies, forty inches high, for hauling all their baggage to and from the cars to the opera-house. It is an astonishing sight to see from fourteen to sixteen large trunks stacked upon a low-wheeled truck and these four miniature horses hauling it.

While the Shetland pony is preëminently a child's pet, it is also a most useful and profitable adjunct to any farm or family. He performs his tasks with such cheerfulness that he endears himself to all who come in contact with him. Consequently many of them live and die without ever changing hands more than once.

While most of the breeders of Shetland ponies whose herds are above the average in number seldom use their brood-mares for working or driving purposes, it is a fact that driving has no injurious effects on the Shetland mare in foal. If anything, she is better for it. With reasonably careful treatment, a mare that is in foal may be used in harness right along up to within a week of the foaling-time. She is ready for harness again when the colt is a week old, and after it is four or five weeks old, it should be taught to stay in the barn when the mother is working. Then as he learns not to worry too much he should be turned in the pasture while the mother is in harness. He should be allowed to nurse at least three times a day, care being taken that the mare is not overheated to the injury of



Prize-winners at home

the milk, but if you do not want to be bothered with this, he can be taught to drink cow's milk quite the same as a calf (only much easier), and weaned at the age of six weeks. The writer has weaned several that way, giving them all the milk they will drink twice a day. They seldom want more than a pint.

Depreciation in value plays a less important part as regards Shetland ponies than in any other branch of domestic live stock. Horses depreciate in value about the time they get to be nine or ten years old. It is the same with other live stock. But a Shetland pony is just as valuable for a child's pony in the interim between twelve and twenty years of age as at any earlier period. As for breeding purposes, a mare is just as good between the ages of ten and twenty years as previous to her tenth year. Personally, I have a mare that I know positively to be twenty-five years old. Last spring she dropped a fine, spirited colt and she gives promise of keeping up her good record this year. At a recent sale of Shetlands some old mares twenty-four years old brought \$250 each.

Although only a relatively small number of Shetland ponies make their appearance on the horse-markets of the country, the quick sales, at good prices, show the ready demand for them and the growing appreciation of their worth.

In this day, when so many of the boys are leaving the farms and rushing to the cities to "get rich quick," there is not a more profitable and interesting business to start them in to keep them on the farm than the raising of Shetland ponies. Start them with one, two or more good, registered Shetland brood-mares, and they will soon get interested in having a large herd when they become familiar with the large profits which are to be obtained, considering the small amount of expenditure and care required in raising them. There seems to be no danger of the business of raising Shetland

ponies being overdone, for there are less than 10,000 registered Shetlands in America to-day and nearly 100,000 people, and most every family wants one or more, and should have them where there are children.

The price of Shetlands has nearly doubled in the last four years, and some of our largest and best-posted breeders predict that they will double in price again in the next five years.

Breeders of Shetland ponies have a great advantage over those who raise other breeds of horses, for they can be sold so young and can be shipped from one part of the country to the other at so little expense. A Shetland of five hundred pounds can be crated and shipped half-way across the continent for \$8 or \$10 if on one express company's line, and for short journeys about \$5 is the prevailing rate. So it gives breeders access to a large market all over the United States. Quite a number are shipped to Canada.

Any reputable breeder will send you a full description and photo of a pony, and sell it to you as satisfactorily as if you had spent the time and money to go to his farm and select one. Then, if the pony does not suit, he will take it back, and give you another pony, or refund your money. With a careful description, accompanied by photo and the number of registration in The American Shetland Stud-Book, there is almost no chance of a pony so selected being unsatisfactory.

So this simple manner of making purchases and getting them delivered is one of the things which go to make the breeding of Shetland ponies profitable.

In conclusion, I would urge all farmers that have children to purchase one or more pure-blood registered Shetland brood-mares at once. If you cannot afford to purchase a brood-mare, get a filly colt; it will soon grow up. If you have a child that is sickly, a Shetland pony to ride is better than all the medicine you can give it. Doctors all over the country are recommending them for children that are delicate and frail. It takes them out into the open air, and the outdoor life incident to this form of recreation is of untold worth and benefit to the growing children, whose lives are all too often bounded by four walls the greater part of the time. It gives them good, healthful exercise without fatiguing them, and takes their minds off their aches and pains. Nothing will so conduce to the pleasure and welfare of your children as the Shetland pony in his improved form of to-day.

Dairy Buttermilk

By J. L. Graff

BUTTERMILK sales are made to cut a considerable figure in the profits of a paying dairy in Iowa County, Wisconsin. Practically all of the buttermilk produced by a farm butter-making plant taking the product of sixty cows is disposed of to a rural mail-carrier who conducts a buttermilk route in the town from which he starts out on his route.

The dairyman sells no milk or cream; he converts the entire product of his pure-bred herd into butter, feeds the skim-milk to his calves and pigs while it is warm, and sells the butter direct to consumers who contract for it to be delivered in jars of different sizes, according to the size of the family. The buttermilk is contracted for by the mail-carrier at the rate of fifteen cents per gallon, and he sells the whole of it to his patrons at twenty-five cents per gallon.

During recent years there seems to have been a considerable increase in the demand for this kind of milk, so much so that many of the farmers who make butter, instead of selling the milk or cream, have no trouble in disposing of this by-product to considerable profit. The entire product of buttermilk is bottled and so sold. Churnings take place when there is a sufficient quantity of cream to produce about one hundred and seventy-five pounds of butter.

The carrier so handles his buttermilk business that it does not interfere with the prompt carriage and delivery of mail, and the proceeds from the milk goes a long way toward the upkeep of his team.

The same plan could not be worked successfully on all mail routes or even most of them. This man happened to live in a community of people who largely had a taste for this kind of milk, and he was quick to take advantage of the condition. No doubt the same scheme could be made to pay in many other places. The carrier would have to find the trade, and then he would have to find on his route a man who pins his faith to butter instead of milk and cream. It is an exception to find such a man, however.



The pony is a proud individual—so is the boy in this case



A pair of prize-winners

The Market Outlook

And Other Matters of General Live-Stock and Dairy Interest

Feed Some Cattle

IT LOOKS now as if bottom prices had been reached in stock cattle and sheep, and intending purchasers would do well to watch the markets carefully. There is without question fewer heavy grass-fat cattle going on feed than for many a year, for the simple reason that packers are buying them at higher figures than farmers care to pay, and the supply is light. The markets all over are getting plenty of light cattle on the common order, but it takes considerable figuring to make out a profit in wintering such cattle. If the winter is hard, and although it may not be, stockmen should always figure on it and be prepared as, if it comes, feed will be very high and it's a long time to grass. I still believe that even with such conditions this will be a profitable year to feed and that even half-fat cattle will give a good account of themselves. Grass-fat cattle of weight bought in September for from \$5.30 to \$5.70 are paying now well for the corn they have had.

In this section of the country there is really as yet no established market for new corn. The weather has been so fine and the moisture so great that corn has needed a little frost before cribbing, and husking is at this writing just beginning. Consequently feeders are not as yet getting much, if any, new corn, and most feeders generally like to know just what corn they are going to get before filling up with cattle. It's always hard to buy corn from farmers on a rising market. Reports from all over this part of the corn belt show that there are fewer cattle going on feed than ever before, and it would seem that with more months to feed and fewer cattle to do it with there can be no great risk in eating up what the farm produces at a good price for the produce. Good calves are cheaper now than I have known them for many a year, and lambs are certainly worth the money if the purchaser is in a position to hold them until the crowd gets through marketing, for the chances are they will come back as they went out, in a lump, and it's a sure bet there will be no great money made if they come back with the crowd. It does seem as if a bundle of these little forty-pound lambs at from \$4 to \$4.50, kept going until spring with suitable shelter, will leave good returns for feed and labor.

W. S. A. SMITH, Iowa.

Hog-Market Declines

THE gain of fifty to seventy-five cents during the fore part of October gave rise to the general view that prime heavy hogs had reached bottom. The prices in the latter part of the month proved to be of a different nature. The hogs came pouring in in larger numbers than they had in any other October in ten years, with one exception.

Hogs were not alone in this, for the cattle and sheep markets showed proportionately heavy runs, consequently the price of hogs went down, and the lowest price of the fall was recorded.

There seems to be a general disposition of feeders to cash in their cattle and sheep as soon as possible. They have a desire to feed, but they fear the large feed-bills, with new corn on the rise and markets unsteady, hence make short feeds. The markets of all live stock show a great similarity. There is a deluge of mediocre stuff and a scarcity of prime killers. There is all the time a tendency for the fat classes to advance in price, but the packers can temporarily supply their needs with the cheaper grades of meat and so check the tops from going skyward. Occasionally a high mark is reached, but the price is not a stable one.

Market opinion is that there will be little change in the condition until the temporary supply of pork furnished by pigs is exhausted. Buyers will then be forced to fall back upon the short supply of heavy hogs and prices will improve.

Until recently Iowa has been a small shipper, but, because of continued unfavorable weather for fattening shoats, numbers of pigs have made their appearance in the yards. According to reports, there has been little disease among the swine herds there, so one need hardly expect to see the Iowa growers clean up as those of Illinois have. But if they should, the present unhealthy condition of the market would continue until they have finished.

Packers still continue to assert that the losses by disease have been too light to have an effect on lessening the winter supply. It is one of their bear arguments. Illinois, the second largest hog-producing state, is almost bare. The losses have been heavy enough and general enough to affect the general demand for feeding cattle. Many cattle feeders are stocking up with sheep because they have no hogs to run with their cattle should they buy them.

It is well to mention at this time that the packers a few months ago predicted a five-

dollar hog-market around November 1st. How near they hit the mark can best be shown by giving the prices for that day. The bulk of sales were from \$5.90 to \$6.10, with a top of \$6.40. Unless the unexpected happens, it does not seem that prices can go much lower. As soon as hogs drop to the six-cent mark, eastern demand increases, as packing at eastern points becomes profitable. Cheap pork and cold weather expand home consumption. There is a marked increase in export demand shared by all kinds of foodstuffs.

Conditions are such that the grower should hold his hogs until they are in prime condition, unless he is in danger of losing them by disease. The market is apt to start on the upward trend again any day when the heavy run of lightweights shows signs of decreasing. At the present time a bushel of corn will make from fifty to seventy-five cents' worth of pork, according to the quality of the hogs and the skill of the feeder. As a general proposition there is more profit in the long run in feeding grain than in selling it at the same price as one gets for it in live stock. Right now corn made into pork brings from market price to twenty cents per bushel higher.

LOYD K. BROWN, South Dakota.

Hogs versus Cotton

I HAVE received so many inquiries since the publication of a former article, "North Carolina Lands," that it has appeared to me that a number were interested. Now, be it understood from the beginning that I in no way advise a change for anyone, but "when in the course of human events" it seems advisable, either from a standpoint of health, or financial betterment, and one naturally turns southward, my advice is: go slowly, consider not only the winter climate, but the summer. Cotton is a new crop to the Northerner, and the climate of the cotton-growing sections is necessarily hot, and not extensively considered in the light of a summer health resort.

But in the mountains, there you have the climate, but not the cotton, so the natural question is what is to be the money crop. At present, the South is importing large quantities of pork; breeding stock is being shipped in by the car-load; bluegrass and white clover grow naturally here on the mountain-sides; pork can be raised cheaper here than in the corn belt, owing to the longer pasture season; the South is going to raise her own pork, and it is going to pay everyone who helps to do it, providing he makes use of his opportunities—that is, range and pasturage on cheap land—and buries the purely corn-diet theory along with that of witches.

W. A. SHAY.

Sheep are Stable

THERE is little change to report in the state of the sheep-market. Prices seem to vary only as more or less sheep and lambs come in, but they never recently have reached those of six months ago. The receipts from the West reached enormous proportions in the middle of October, the 16th being the banner day of all time, when 71,792 were received in Chicago, the total for the week being 218,126. This was met by a fall of from ten to twenty-five cents on good lambs and of two to five cents on good sheep. Then a slight improvement marked the last week of October and the first few days of the present month, lasting but a few days.

I look for no real change till next spring, though perhaps the holiday trade may induce a slight rise. By the new year it is to be hoped that an improvement may be found in the quality of the animals sent in. Though the old free-range system may be regarded as past and gone, the new attitude assumed by western sheepmen toward the managers of the forest reserves, induced by the capture of the ranges by settlers, persuading the authorities to fit the reserves for grazing sheep and cattle, would seem to threaten a continuance of the supply of a low grade of half-finished sheep and lambs.

The *Arizona Miner and Stockman* on this point says that "room has already been made on these reserves for vast numbers of sheep in these forests, which come from there to the feeders, who will feed them on browse and half-matured corn, and send them to the markets half fat." What will be done with these and others of the like sort, I do not pretend to guess, but I do know that their presence in Chicago and the eastern markets will in no wise affect either the demand for or the prices of really prime lambs in the spring and early summer of 1912, any more than the cheapness of cotton dress-goods will cause a wealthy woman to give up her silks and velvets. The best of everything will always command its price, and plenty of men are always on hand to cater to the demand. Therefore, I say, try to be ready with well-bred and well-finished

lambs of the mutton breeds as early as possible in the spring and early summer. To this end a clearance should be made any time now of every undesirable sheep, no matter what the present apparent loss may be, to make room and clean up for the lambing.

Recognition of the growing popularity of mutton and lamb comes from all quarters. The *Texas Stockman* says: "It is reasonable to suppose that the demand for it will increase. With it prices will go up." But I would like to see a more strenuous urging in the agricultural press of the fact that quality and desirable weights are of growing importance. When one sees Montana feeders flooding the markets with thirty to forty pound lambs that even seekers after cheap feeders will not look at, how can one wonder at the present demoralization of the market? Chicago and Omaha have done a big business in feeding lambs, often at good prices, but how much profit their buyers can look for unless foodstuffs are to be cheaper and more plentiful than is generally expected is quite problematical. To my mind, the men who will make the money next spring are those who, breeding from good mutton stock, have been in a position to fatten them off the produce of their own farms with a little help from linseed and cotton cake and a little bran for variety. If our farmers could only be persuaded to grow a few acres of "swede" turnips, regardless of the seeming cost, which is about that of corn, they would be surprised to find their value as feed for stock of all kinds, and especially for sheep, to which must be added their value as a preparation for grain crops of all kinds. The late Prof. John Craig placed a high value on them, and no one knew sheep better than he.

My present object is to try to impress on our farmers of smaller acreage that a serious shortage of the meat-supply is surely impending in the near future, and that it will be up to them and to the men of the corn belt to cope with the deficiency.

I have not space to go into detail in the care of ewes and lambs during the winter, but the matter was dealt with at some length in the issue of FARM AND FIRESIDE of September 25, 1910. In the same number is a very useful article by Prof. Frank Kleinhertz on the cure of caked udders. I hear that he has recently published a book on the entire subject of sheep husbandry, and from his long experience and knowledge of the subject I feel sure that the book would be of great value, especially at this time of the year, to all interested in sheep. The book can, I understand, be had by applying to him at the University of Wisconsin, where he is instructor in sheep husbandry.

JOHN PICKERING ROSS, Illinois.

There's a salve for every sore—but it won't do any good if the sore is on the horse and the salve remains in the drug-store.

When some people cry over the spilt milk of human kindness, it is because it wasn't spilt over them.

Twice during the past twenty years corn has sold at the ruling price for wheat.

During the past ten years, the population of our cities has increased three times as rapidly as it has in the country.

Division of Labor

THE most important operative principle in economic production is undoubtedly that of division of labor. The analysis of this principle, upon which rests the fame of Adam Smith, the "father of political economy," was made after division of labor had passed its first stages and was exhibiting the power which it was to show in the "Industrial Revolution" of the last century. In the original village community, from some form of which has sprung all of our economic civilization, all were self-supporting farmers. But nearly all such communities are known to have had at least one member, a smith, who practised iron-working, the only mechanical art not performed by each villager for himself. Larger and further developed villages show other craftsmen, and many have a miller as the earliest development of the commercial manufacturers.

As some villages grew into cities, the different handicrafts multiplied until, in the cities of the Middle Ages, the artisans were a numerous class of prosperous experts. This development preceded the phase of division of labor which attracted the attention of Adam Smith. An economist of the Middle Ages would have called the development division of employment, which indeed has been suggested as the proper term rather than division of labor.

Certainly division of employment was the earlier phase of division of labor, and, of course, embodied some division of labor. Now it is plain that every step in division of

employment is a step in specialization of industry. The smith in the primitive village community was a specialist as compared with his agricultural neighbors. In a sense, all division of employment and division of labor is specialization. Both involve a specialization of the work of individuals. The process of division of employment always brings the additional expertness always expected of specialists. Among farmers now the process of division of employment may be best characterized as specialization. Can we tell why the mechanical trades specialized and the farming occupation remained diversified? It is, no doubt, owing to the fact that farming can be self-supporting and that each farmer takes up such a portion of the earth's surface that each farmer or group of farmers is too isolated to trade freely; whereas craftsmen may live and work closely together, making their necessary trading easy and natural. But the main reason has always been that farmers have constituted a large majority of the population, and the markets for their productions have not been sufficient to require and justify specialization. The economic period for agricultural specialization had not arrived.

Farm Trading Extensive

In spite, however, of the natural handicap, trading by the farmers has become very extensive. The farmer no longer individually makes his own shelter, his own clothes, or a large part of the food he consumes. Transportation facilities have overcome his trade isolation, and now it is a question whether he shall produce merely a surplus for the market, or shall make a market crop and purchase with the proceeds an increasing proportion of his food requirements.

Like dairying, cattle breeding and feeding involves considerable general farming in growing a line of feeds, yet the cattleman is naturally a specialist, and it is frequently noted that the owner of great herds of cattle buys his milk and butter the same as the milk dairymen buys his butter. Here some economic exchange is easier and pays better than adding another item toward production.

The poultry business is rapidly going into the hands of those who do nothing else, and are skimming the cream off the markets. Poultry-keepers make little pretense of raising their feeds and do no general farming. Although apparently a small matter, poultry is very exacting in its requirement of business system and does not tolerate divided attention.

Bee-keeping and fruit-growing more and more seem to require all the labor, capital and management of their respective followers. Both are less and less features of general farming. The markets require more and better honey and fruit, but it is the expert producer who must supply the demand. Trucking, the great original and typical specialized farming industry, is rapidly extending. However, many truckers do not ever pay what attention they should to a proper rotation of truck crops, owing largely to want of capital. W. ALDRICH.

Stomach-Worms Persistent

THE twisted stomach-worm, which is becoming quite common on sheep-farms, is widely distributed. It infests the fourth stomach of both sheep and lambs, but the former are immune, in many instances, to its attacks. By reason of its infesting this part of the anatomy of the sheep, it is most difficult to dislodge by medicine. Even that which is dangerous, and much of that kind is recommended, is of doubtful benefit.

However, I think I have succeeded in heading off the depredations of this pest in a way that will not enlist the aid of any particular remedy. My experience of forty years in handling sheep has led me to not only study the character of this pest, but to ascertain, if possible, some way to counteract its damaging effects. I found that the worm appeared about the middle to the last of June. I also discovered that adult sheep and vigorous early lambs were immune to the attacks of this pest. Governing myself upon this theory, I had all my lambs drop not later than the middle of February, and by the time the stomach-worm appeared the lambs were so near shephood that they were almost immune to its attacks. I found that these lambs were infested with worms, but no more so than were the older sheep, and I also found that only a few of them fell victims of this insidious foe. This led to the practice of breeding our ewes so all lambs dropped not later than February 15th. Of course, this meant providing warm quarters for the breeding-flock, which was done, and but few lambs have been lost by the stomach-worm route. We have on our sheep-farm a pasture that has been to grass for thirty or more years and has been pastured by sheep during all that time. Barring the presence of stomach-worm infection, it is

becoming better each year, and annually affords more pasturage than any like area on the farm.

In some of our earlier battles with stomach-worms we fed various drugs, among which was found santonine, turpentine and gasoline. Our efforts were not crowned with success, however, for many were lost after being treated. One reason for this was found to be due to the fact that remedies did not begin soon enough. When a lamb begins to show symptoms of being infected with stomach-worms, it is almost beyond medical aid. The symptoms are emaciation, staring coat, eating of dirt and other foreign substances, and isolation from the rest of the flock.

In later years, I have placed absolutely no reliance on any remedy for stomach-worms. I made no effort to renew pastures, so as to have pastures free from them, as that is impracticable on my farm, it being rough and timbered in places. By pursuing the plan of having the lambs drop in February, and pushing them along by extra feed and care, I have found that they get out of the way of danger before the stomach-worm can get in its fatal work.

GEO. W. FRANKLIN.

Tuberculosis of Throat

A GEORGIA subscriber has a cow that is troubled with hard breathing. She has been this way for about a year, and the trouble seems to be altogether in her throat. When she is eating, she also has a roaring, belching noise from her stomach, which is more noticeable when she has been on grass or green forage. Otherwise she is a healthy cow, and gives a fine flow of milk. What is the remedy?

We strongly suspect that the trouble is tuberculosis of the glands of the throat, and the belching may come from the same disease enlarging some of the glands and causing pressure upon the gullet. There is, of course, no cure. No time should be lost in having said cow treated with tuberculin, which will settle the matter one way or the other inside of forty-eight hours. Meanwhile isolate the cow and do not use her milk. The place she has occupied should be thoroughly disinfected and whitewashed if she proves to be tuberculous. If that is the case, the other cattle in the herd should be tested, as the disease is contagious and may have spread from the one affected cow. It also is readily contracted by hogs taking the milk from tuberculous cows or following them in the feed-yards.

A. S. ALEXANDER.

Milk for the Orphan Colt

A TEXAS reader asks for an opinion on a controversy which he has with a local veterinarian. A Percheron mare, owned by the former, died foaling, but the colt was strong and vigorous. The milk of two cows was available. One of the cows was fresh a few days before, and the other had a calf six months old. The veterinarian ordered one-half pint of milk from the "six months" cow every three hours. The colt learned to drink at once. A half hour after feeding, the colt would seem very hungry. It lived less than three days. Neighbors disagreed with the doctor, and maintained that the milk of the fresh cow should have been used, but all agreed that the amount and time of feeding were right.

The trouble with the colt was in not having enough milk. A quart would have been nearer right than a half-pint. I have raised several colts by hand, and never had any serious trouble. But I gave them plenty of milk.

No colt could live on as small a ration as the colt in question received.

The opinion that the milk from a new milch cow is preferable in such cases, is correct, other things, of course, being equal. It is also desirable, for the first few days, to have it freshly milked. I never thought it wise, in raising by hand, to make any hard and fast rule as to quantity. The great thing is to watch the colt carefully, and see that his hunger is kept satisfied; and to do this by frequent feeding, so that his stomach may be full, but never unnaturally distended.



A silo scene. Silage is now a standard feed, especially for dairy cattle

If this rule is faithfully followed, there is rarely much trouble in raising the colt. During his infancy, however, he will seldom look as smooth as if running with his dam. But after he learns to eat, he will do as well as any other colt.

DAVID BUFFUM.

Romney Marsh Sheep

AT THE present time the Romney Marsh, or Kentish sheep, as they are commonly called, are comparatively little known in the United States. There are, to be sure, some fine flocks of these splendid animals, but when their excellent qualities become better known, the writer believes their number will increase very rapidly.

With the object of studying the good and bad points of Romney Marsh sheep, and with a view toward the practicability of increasing our flocks in the States, the writer made recently a most interesting trip into Kent County, England, which is the native heath of this breed, and where every farmer, as a matter of course, owns a flock of these sheep.

The chief characteristic of Romney sheep is hardiness. They can stand any climate and exposure in any weather. They can be run thicker per acre and are not so susceptible to the worm complaint or foot-rot as other breeds. Lastly, they yield large



Will Romney Marsh sheep be of use in America?

quantities of wool of a good quality. The ewe seen in the photograph yielded fourteen pounds of greasy wool when ten months old, and several stud-rams were seen whose average wool-clip was seventeen and one-half pounds of washed wool (twenty-five pounds of greasy wool).

The hardiness of these Kentish sheep may be realized from the fact that the writer saw a flock of one hundred and sixty ewes summering in a twenty-four-acre pasture which, owing to a two months' drought, was covered so thickly with manure that it was difficult to step in any direction without stepping into it, and yet the sheep looked and felt well fed.

On the great Romney Marsh, in Kent County, where these sheep are raised by the thousand, they are run ten sheep to the acre. This wonderful marsh, however, is noted for its rich and abundant pasturage, which has been cropped continuously for hundreds of years, yet the flocks pastured there live entirely on grass the year around.

The best specimens of Marsh sheep have deep bodies, heavy bones, very good heads well covered with wool, and large, thick ears. The ewes lamb about the first of February, and the number of twins, where the soil is fertile, is large.

In England, where sheep are to be seen on every hand and are always kept under the eye of the master, they are very docile and easy to manage. A boy of sixteen, with a dog, will keep a large flock well in hand while feeding on the wheat-stubble or while driving them to market.

Those of us who are interested in improving our flocks or importing fresh blood will, the writer believes, do well to consider the Romney Marsh breed before making any other choice.

EDWARD K. PARKINSON.

Cement hog-floors are good, but chill the young pigs. Make a board frame or woven-wire-netting device to hold pigs and bedding in place. It will certainly pay.

A Big Work

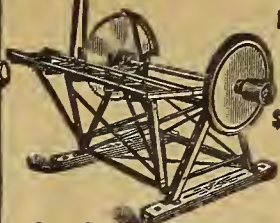
BESIDES the fact that specialization is actually taking place in agriculture, we may point to the fact that specialization has always been bound to be necessary to a great production. The smith in the village community found it necessary to quit farming, and apply himself to his specialty, to supply the demand for his handiwork. And now that cities are drawing to themselves the majority of our population, the farmers must specialize so that the volume of their production will meet the wants of their growing markets. The mere surpluses of a minority of the population will not supply the growing city majority. Farmers are confronted with the new problem of supplying a market which has more consumers than their own numbers.

This calls for specialization and results in some remarkable farming successes.

While specialization is not the ultimate limit to which farming will go in following the economic lead in division of labor, and will not bring all the benefits to be derived from an economic development of the agricultural industry, it is the present phase of progress and the proper subject for practical study by those interested in the betterment of rural conditions and in agricultural progress.

W. ALDRICH.

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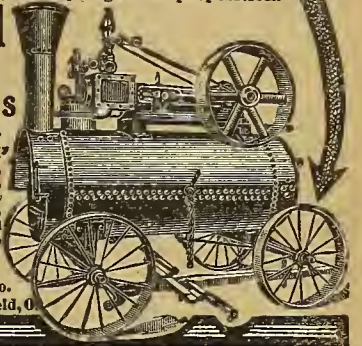
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Minnesota State Agricultural College,
St. Anthony Park, Minn.

Missouri State Agricultural College,
Columbia, Missouri.

Michigan State Agricultural College,
East Lansing, Mich.

Mississippi State Agricultural College,
Agricultural College, Miss.

New Hampshire State College of Agriculture,
Durham, N. H.

New York State Agricultural College,
Ithaca, N. Y.

North Dakota State Agricultural College,
Fargo, North Dakota.

North Carolina State College of Agriculture,
Raleigh, N. C.

Nebraska State Agricultural College,
Lincoln, Nebraska.

Oregon State Agricultural College,
Corvallis, Oregon.

Ohio State Agricultural College,
Columbus, Ohio.

Pennsylvania State Agricultural College,
State College, Pa.

South Dakota State Agricultural College,
Brookings, South Dakota.

West Virginia State Agricultural College,
Morgantown, W. Va.

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The **FARM AND FIRESIDE** Scholarship is not a competitive prize contest. It is open to every candidate to win one and take a course in agriculture this winter, but the number of candidates is limited, so you should send in your application right away. To gain the Scholarship we ask you to do a definite amount of extension work for the **FARM AND FIRESIDE**, work for which you shall be paid, no matter how much or how little you do. The Scholarship will be paid, in cash, the day you enter the Agricultural School you select.

The Story of Good Butter

MR. PRACTICAL BUTTERMILK was lecturing. Before him was a churn, a worker, a Babcock tester, glassware, pails, a big jar of cream, and all the tools of a businesslike dairyman. His assistant stood at attention.

"The first thing we will do," he began, "is to wet the churn. No, we don't want the hot water, Mr. Assistant; we always start a churn with cold water, so as to fill the surface pores of the wood and prevent the cream from soaking in. Besides, in summer the temperature will then not rise so rapidly."

"How much cream do we have, Mr. Assistant? Thirty pounds; twenty-four hours old; good! The next thing we do is to add the coloring matter. Most markets demand the June color to butter, so we will put in about 60 cubic centimeters per hundred pounds of fat. But how are we to determine the pounds of fat? Easy enough. We have cream here that tests 33 per cent.; multiplying that by the pounds of cream gives us 9.9 pounds of fat. Then multiply 9.9 by .60, and you have 5.94. This means that for this batch of cream we will use about six cubic centimeters of color. You see we butter-makers can't get along without the Babcock test and some little arithmetic."

"What was that? Somebody asks about cubic centimeters. That is the way all dairy glassware is marked. Look for the c. c. sign; no reason to get confused at all. We might talk more in other measurements, but the makers of glassware find this the easiest."

"Now that the coloring matter is in the cream, we will place it in the churn. I see it fills the churn just about half, which is about right; much more than that amount of cream will prevent the concussion, the striking of the cream against the sides of the barrel. Without this concussion we could churn all day without getting butter."

Factors in Churning

"But hold on a minute; we have nearly forgotten one important point. We know the fat test of our cream, but we must also know the temperature and the degree of acidity. Fat, temperature and acidity are the three main things which influence churning. The slip which Mr. Assistant has given me says that the temperature is 54 degrees and the acidity .53 per cent. The acidity is perhaps just a trifle high, but the temperature could not be better."

"We used to think that cream ought to be churned at about 60 degrees, but we have changed our minds. We now know that in order to get that firm, waxy butter so much desired we must churn at a little lower temperature. By the churning temperature is meant the temperature of the buttermilk when it is drawn off. As this, because of the heat generated in churning, is a little higher than the cream, we must allow for it. A good churning temperature is about 58 degrees, so cream at 54 is very good."

"What was it that that man said, that fellow towards the corner? That a farmer hasn't the time to go to all the trouble of acid and cream testing, and the taking of temperatures; that you can make butter without that tomfoolery? Sure you can; our grandparents did. But what butter it was! No, my man. In this day of science even the farmer must make his butter along scientific principles if he wishes to obtain a No. 1 product."

Mechanics of Churning

"Well, I see Mr. Assistant has clamped on the cover, and is getting ready to churn. He will now turn the crank a few times and let out the gas. Otherwise the whole thing might blow up. What is that you said; he is turning to the left? That doesn't matter; it makes no difference which way you turn. The main thing is to keep up about the right speed, so that you can hear the cream splash inside. Thirty minutes ought to be about enough; if it takes longer than 45, something is wrong. The time of churning, however, depends upon several factors other than temperature, acidity and fat. For instance, Holstein cream will take longer, on account of the small fat globules peculiar to Holstein milk. Milk from a cow fairly fresh will not take so long. As a rule, if it churns faster than 30 minutes, it will pay to lower the temperature; if longer than 45, it will pay to raise the temperature."

"Somebody wants to know if butter can't be made in less time. Good butter cannot. I know there are a lot of agents selling one and two minute churns, but these machines are the worst kind of fakes. Dairy men cannot afford to monkey with them."

"As a general rule, the churning temperature must be higher in winter because of the difference in milk composition. Winter cows are nearly always strippers, and this, combined with the preponderance of dry feed, makes the cream of a different consistency. In summer it is often difficult to prevent leaky butter. Leaky butter is greasy, and will not hold water well. It is the result of too warm a cream which has not been well ripened."

"Ah, I see Mr. Assistant has been examining the cream from time to time. Let me take a look. The butter is now the size of wheat-kernels; high time that the churning was stopped. To continue further would be to incorporate a lot of buttermilk into the fat, and that would produce an off flavor. You

see our object is to get the fat-granules large enough so that the milk can be drawn off easily, and yet not so large as to soak up a lot of buttermilk."

Working the Butter

"We will now drain off the buttermilk, using this hair-sieve. That is good, Mr. Assistant; I was glad to see you wet the sieve. It is an excellent rule always to work with wet tools in the dairy. I see that the buttermilk has a temperature of 58 degrees, just about what it should be. We will now warm some water to that temperature; we will use approximately as many pounds of water as there are pounds of buttermilk. Mr. Assistant, please get that balance. Sixteen pounds and a half. That is what I expected."

"We will wash only once. Some men do it as often as three times, but a second or a third washing is very apt to wash out those delicate flavors which create a demand for the best butter. Too much washing is just as hard on the flavor as too much buttermilk."

"Place the butter in a thick layer on the worker, but don't set the roller going at once. First distribute the salt as evenly as possible. We generally use about three fourths of an ounce, a standard amount. Some makers prefer more, some less, some none at all. We had nearly 17 pounds of buttermilk; that leaves in the neighborhood of 13 pounds of butter. Mr. Assistant, weigh out 10 ounces of salt."

"Do I hear somebody say that wet salting is better? Right. Dry salt is hard to incorporate evenly. So, Mr. Assistant, take those 10 ounces, and dissolve them in an equal bulk of water. Place this brine in the churn, with the butter, and revolve a few times so as to secure a thorough mixing. Now it will not do to place the salt in the churn until after the first washing, for otherwise a lot of good salt will be wasted and a lot of good buttermilk will be rendered unfit to drink."

"Then take your paddle and put the butter upon the worker, and work out the superfluous salt and moisture. Of course, it is understood that the worker was washed thoroughly with hot water, and then rinsed with cold. Take your time in working the butter; half an hour is none too much. Otherwise some salt particles, if dry salting was employed, may remain undissolved, and gritty butter will result. Customers object to gritty butter."

"While Mr. Assistant is putting the butter in tubs, I will explain that question as to whether salt increases the weight of butter. I know that some farmers think that cream-erymen get rich on the salt put into their product. That is not so. If you were to take 10 pounds of butter, and add a pound of salt, and then work it in thoroughly, you will be very apt to have only 9.5 pounds of butter in the end."

Computing the Overrun

Mr. Assistant tells me that the butter we have made weighs 11.7 pounds. As we had only 9.9 pounds of fat, we have 1.8 pounds more of butter than of fat. This is called the overrun, by which is commonly meant the water and the solids not fat in the butter. This makes an overrun of about 16.2 per cent.; a fair average."

"In closing, just a word about washing the churn. Wood, unlike tinware, must always be started with hot water. Cold water should be used only in the final rinsing. Put in the hot water, and give a few slow revolutions, being careful to let the gas escape. Otherwise there may be an explosion; a fact which a professor at one of our western universities discovered. The college had received a fine new churn, but it blew up at the very first washing. Repeat several times, rinse, and wipe off all extra fat under the rim; then drain, and put out to dry."

WILLIAM A. FREEHOFF.

Grazing Young Horses

Attention to Possible Causes of Injury

IT is unfortunately true that many horses are ruined by neglect while young. Overforcing and consequently overweighing immature limbs is responsible for much evil; and wintering in boxes where manure is allowed to accumulate gives rotten feet, and lays the foundation of much disease. But even where colts are hardily and healthily wintered out, with a good range of pasture, and perhaps the run of a rough, cheap shed, they require other attention besides daily feeding. Before a colt is put into a field it should be carefully examined to see if there is any place where it can possibly get into trouble, such as a nail or a hook, where he might tear himself; a piece of board or old fencing rail, with a nail in it that he might set foot upon; a bit of bog, where he might get stuck (and if there is a bit of boggy land in the field, a horse will be on it after the green tips of the coarse grass and rush); a narrow grip or trench in which he might possibly get on his back, and not have room to roll; a drinking-place, in which there is not ample room to turn; a pond, on which it is possible for him to get when frozen; a gap, where he may be tempted to bore through, and risk getting staked; barbed wire around top bars, against which he may be driven by a master colt, than which nothing will cause a more ugly festering wound. I have at one time or another heard of deaths from all these causes. It is no use being wise after the event, and it is not much satisfaction to

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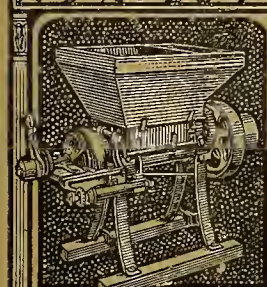
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say, "Who would ever of thought of his getting there?" When every reasonable precaution has been taken, then and only then, a farmer should leave his horses with philosophic calm. When a horse is found fast in a bog or ditch, possibly too numbed and cramped to make much effort himself, a steady horse in gears, ropes and spades will be found useful. First, with the spades an easy slope should be made up which to draw him, and a knotted rope attached to his neck. This is the only safe place to draw by, and a steady-drawing horse will soon have him out of trouble. I have never known a horse injured from being drawn by the neck, and I have seen many.

Lice and Other Troubles

Besides guarding as far as possible against accidents, there are other things requiring attention. If a colt rubs, lice should be looked for at once. Of course, if a colt is in really good condition (when he is most unlikely to have any), a few lice would not do him any very serious injury. But let him once get below the weather, and lice will soon render him an attenuated frame. Some of the old remedies, such as stavesacre and tobacco-juice, take so much time in preparation, and are quite unnecessary. A little yellow sulphur rubbed in along the spine, including mane and tail, is usually sufficient, or a little creolin and water may be put on some fine day. Dress as soon as any are perceived. It never pays to support lice. By the way, petroleum, which is often used as a lice-dressing, has a most injurious action upon the skin. I once knew some young calves nearly killed by it.

All foals should be taught to lead when young. It saves so much trouble afterward. With these it is very little trouble to periodically pare and

Trim the Feet

On grass, and especially on soft meadowland, the growth of the feet is much greater than the wear. If neglected, the toes grow to a great length, and break off in pieces, leaving jagged, broken surfaces. Often the cracks spread far up the hoof, leaving room for dirt to get in and set up trouble. Nor is this the only danger. With so much growth at the toe the colt often walks too much on the heel, with the joints in a strained, unnatural position, thus laying the foundation of weak joints from which he never fully recovers. The paring-knife and the rasp may be used to shorten the toe, to cut out cracks, and leave a round, well-shaped hoof, but on no account should the front wall of the hoof be touched. The frog, as a rule, will not need much attention, only just the loose bits requiring to be cut away. A professional smith need not be called in for trouble like this. Any young farmer worth the name can learn how to do this in one lesson. It may seem unnecessary to warn anyone against handling colts on a hard surface, and yet one never knows. A neighbor of mine, who was a good horseman, with many years' experience, once thoughtlessly was paring some colts in a paved yard. One very promising bay filly reared, came backward, and never got up again. On turf or in a straw-yard there would have been little danger. There is no doubt that many troubles and losses on a farm can be avoided by care and forethought.

There are two places where a man needs to be all eyes, on a farm and on board ship.
W. R. GILBERT.

Weaning the Lambs

There is a wide difference of opinion as to which is the better way to manage the weaning and maturing lambs. It is quite a common practice among sheepmen to let the lambs run with their dams until weaned by the ewes. This may be a good practice for those who follow it, but it seems to me that there is room for improvement. The objection does not come in the way the lamb itself is treated, but the ewe may not do so well and may not become fully prepared for another crop of lambs as is the case with the ewe when the lambs have been weaned at a proper time.

When about four months old, the lambs should be weaned and given the best of treatment. It has been my custom to place the ewes on scanty fare at weaning-time, watching the best milkers to see that there are no udder troubles, and when they have fully recovered from the ordeal, they are again placed on the usual pasture and feed. In doing this we have observed that they are in good flesh at breeding-time, and by being in such condition they become better mothers, and are prepared to grow a healthy lamb by reason of their coming strength. Upon the health and condition of the ewe depends a great deal of the vigor and success of the next lamb crop.

We place the lambs in a clover-meadow or aftermath, or some other good pasture, preferring one that is near the barns. If grass is abundant, they may do well upon grass alone, but I have found a different way much more to be desired. When the lambs are two weeks old, a lamb-creep is provided, in which are self-feeders containing oats and shelled corn, mixed. The lambs will soon learn to go into this apartment and partake of a peaceful meal undisturbed by adult sheep. By putting in the feed

when the lambs are of this age we have never had any of them cloyed. They partake of this feed when they wish, are nourished by their dams and also the grass to which they have access. I have found that many lambs become so accustomed to this supplementary feed that they are less taxing on their dams, and when weaning-time comes they are not a great deal of trouble.

Along in October I find it a good plan to turn the lambs in the growing corn. They clean out the fence-rows, eat the weeds that may have been left by the cultivator, and only occasionally will a lamb eat some off the ends of the ears, and they also feed on the lower blades of the growing corn. In addition to this, we have found pumpkins an excellent supplementary feed, and the seeds act as a vermifuge. The corn-field next to the sheep-pasture is abundantly supplied with pumpkins, and when the lambs are turned in the field are opened, and soon the lambs learn to eat them, and they will proceed to open such as they need. The seeds provide a worm remedy, and the pulp makes an excellent feed for the lambs. I have never suffered any loss of corn to speak of.

It will also be necessary to see that all fences between fields containing the ewes and the lambs are in the very best of order, as there will be a disposition on the part of both to get through the fences. I have never placed much dependence in the plan of taking the ewes out of the hearing of the bleating of the lambs. It is not always possible to do this, and it may not be necessary. Where lambs are properly managed, there is little trouble at weaning-time. When possible to do so, the ewes that had no lambs, and those with spoiled udders should be let run with the weaned lambs. There is less uneasiness on the part of the lambs when such sheep are with the weanlings.

I have heard a great many say that weaning lambs is a critical time with them. I have read this in books and in farm papers, and have heard college professors make this statement, but my experience is not supported by their views. It may be that because I provide them with supplementary feed from the time that they will eat until weaning-time, that they do not care so much for the sustenance they obtain from their dams, that it gives them but little inconvenience to be taken away from their natural supply of food. With a ewe it is different, for there is a maternal attachment there which has to be overcome. The lamb is well off when he is filled with good, wholesome food.

GEORGE W. FRANKLIN.

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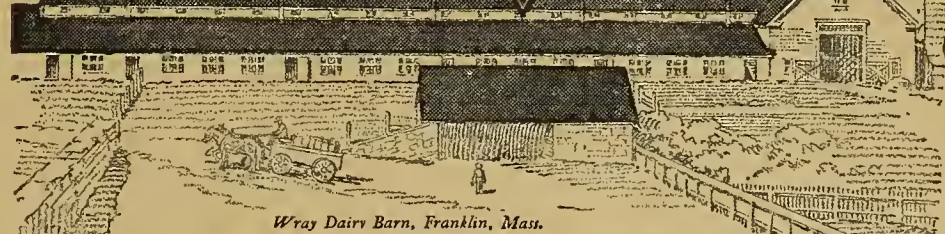
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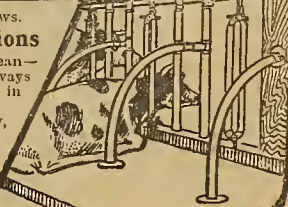
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Poultry-Raising

Visions of Chickens

THAT innocent, stupid creature, the barn-yard fowl, is responsible for more swear-words than any other member of the domestic-animal tribe. Does she not creep through hedges, and fly over fences into the neighbors' gardens, and eat up all the garden-seeds, and scratch up the flower-beds, and make herself most unpopular? Guns have been drawn and lawsuits waged all on account of chickabiddy.

Some money has been made, but also a great deal of money lost in trying to raise chickens, delusive ads. and booklets to the contrary notwithstanding. It is a trade that must be learned and profit earned, mostly by bitter experience.

Is there anyone who has not, upon taking up his living on a farm for the first time, come to realize what a complicated piece of machinery the farming business is? And with what a thump he realizes how green he himself is when he makes his first attempt at hoeing potatoes. It is much, much worse to set up a chicken-farm.

Once upon a time there was a city lady who moved to a farm. All her life had been devoted to Art with a capital A. She was more verdant than the grass under her feet. She knew how expensive it was to keep house with "broilers" more than once a week on the table, and, therefore, the tales she had read of the "big money" there was in chickens must be all of them true. Moreover, she was fired with the ambition to be of material use to a newly acquired husband. So the first thing she did in her country home was to build a fine chicken-house on scientific principles and with a run into an apple-orchard. All this was to be as a surprise to hubby, who was away. It was.

The city lady set about stocking the premises. She had a fancy for Barred Plymouth Rocks. Down the street in the town to which she had moved lived a real professional chicken-raiser. He knew his business, and he produced some of the finest birds that ever sported feathers. To this expert in the barn-yard tribe the city lady with Art proclivities betook herself in all confidence. Now let it be recorded that a horse trade and a chicken deal are first cousins in possibilities. The professional chicken-raiser showed the lady the farm. Every time she liked a bird, he raised the price on her seventy-five cents, until she had selected a round dozen, which they put into bags, which the city lady thought was very cruel (the society should be informed)—she wanted to carry the dear things home in her arms—but they reached their new home in prime condition. And they certainly were as fine a lot of birds as ever scratched for a living. Then she waited for the fresh eggs. But there were none. Instead of that was one long fight, and the run was full of feathers. One solitary bird stood ever in a corner and seemed to take no part in the discussion. The Art lady called up the chicken-man on the 'phone and complained that one egg a day was all she got from her twelve birds. He said he would come up to see about it. He did; looked very grave, and recommended a change of diet. She followed his instructions to the letter. Same result. More fights, but no more eggs. Presently her husband came home unexpectedly. After dinner she told him her troubles. "Why," she said, "the farmers drive close up to my chicken-run, look over into it, and do nothing but grin and howl. What does it mean?" Husband was not sure, being only

a salesman and no farmer, but he had his own ideas. Bright and early the next morning husband and wife were out at the hen-house. One egg as usual, and five fights in full blast, and feathers everywhere.

"There," said the wife, "that one always stays by itself," pointing to the solitary individual, "and that one (pointing to a huge specimen doing the cock-of-the-walk act at one end of the run) crows all day."

Husband gazed and gazed until the truth, the awful truth, dawned upon him. Then he howled and choked and held himself and swore and egged on the birds and bet first on one and then on the other. Meanwhile, the poor wife took refuge in a flood of tears.

"My dear—my— Oh! Lord—my—" said husband between gasps, "that chicken-thief down the street sold you eleven roosters and one hen!"

And then he threw another fit. Whereas the wife fled indoors to hide her confusion. Upon which husband strode down the street to interview the poultry-vender.

"Why did you cheat my wife in that outrageous manner?" (Very indignant.)

"Cheat," said the Plymouth Rock expert, "cheat nothin'! She liked them cockerels better than the others, so I let her have 'em."

The husband did not shoot the chicken-thief on the spot. Oh, no! He bought another stock of hens and swore him to secrecy. But it was too late. It had spread far and wide over the countryside until it reached another city lady who had turned farmeress. She, too, had been buying experiences with the guileless and honest American farmer; she, too, had been stuck on everything she had bought, all the way from a hoe to a horse, and when she heard of her neighbor's trial, a far-away and reminiscent look stole over her handsome face; but it was set, even stern, as she said: "I don't care—he was a mean man!"

HARRY P. MAWSON.

EDITOR'S NOTE—Isn't there a note of warning in this story?

The Winter Flock

Now is the time to assort hens for winter keeping. Whatever breed you prefer, be sure to keep only the choicest. Hens are now bringing good prices in the markets, so cull out all scrub stock and all hens over two years old, and it is better to keep only last year's pullets, as they will be much the better layers. Dispose of the young cockerels as soon as they get large enough, and never make the mistake of letting a number remain through the winter. They are a useless expense, getting the food the laying hens should have, and when kept long can be sold only as old roosters, at a few cents a pound. If your purse is to be considered, buy your roosters for next year soon; if you are satisfied with your stock of chickens, buy your roosters from someone who has the same stock, though for the best success they must not be related. Pick out ones that come the nearest in color and size, as well as shape and egg-laying qualities, to the ideal of the stock you have selected. If you have a good stock, let good enough alone, and if you must change, look around and find someone that has put to practical uses the stock you want. Above all, be practical, use good common judgment, and profit by the experience of others.

A. E. VANDERVORT.

Poultry-Food Facts

THERE is no best egg-producing ration for birds variously kept; the breed, age and kind-of quarters kept in, all influence the food requirements. The most we can do is to understand as well as possible the composition of the various foods and the influence exerted by these elements; the carbohydrates, protein, ash, etc., and the sources from which derived.

We can furnish a balanced ration entirely from cereals, but it has been well proven that a considerable proportion of the ration for heavily producing hens must be animal food, or there will be a falling off of yield. Feeds must be chosen that contain a variety, including plenty of bulk, such as is supplied by green food when the hens are confined or cut off from getting grass and clover during the winter months. Well-cured clover or alfalfa hay clipped short, mangel beets, turnips, potatoes, apples, cabbage, pumpkins, squash and fresh, sprouted grains are all valuable to furnish succulent feed and bulk, and serve to cheapen the ration materially when fed in connection with the more expensive grains, meat and bone.

After pullets are of a laying age, they can be hastened to production of eggs by giving a considerable proportion of their feed in the form of a damp, not wet, mash of the mixed grains, including meat-scrap, or other form of animal food. Skim-milk is also particularly valuable to make a part of this damp mash.

After once being well started to laying, not over one feed a day of the damp mash should be given, else they will not exercise enough when in confinement and become too fat to lay steadily. The most of their feed should be in the form of cracked and whole grains well mixed with clean litter to induce continued exercising.

Fresh, clean water, grit, crushed oyster-shells and charcoal within reach at all times are just as essential as the right kind of feed.

The following ration has been found to be well adapted to heavy egg production for the grain portion of the ration at any season. This quantity is sufficient for five hundred pounds of live weight, of hens in full laying condition, each hen weighing from three to five pounds, which will approximate one hundred hens: Ten pounds wheat, ten pounds corn, five pounds oats, four pounds wheat-bran, four pounds ground oats and two pounds wheat-middlings.

The whole or cracked grains can be fed in the litter and the ground grains in the form of damp or dry mash. This ration, in connection with sufficient animal food and some of the green feeds recommended, will be found to give excellent results if the hens are of good laying stock and are vigorous and healthy.

B. F. W. T.

Making Poultry Money

THE owner of a flock of chickens is the first essential, no matter how favorable the conditions or how good the markets. The person must at heart be a poultryman, or the profits will not be what they should. Many get good results with other stock-raising on the farm, but with chickens they fail because they are not "made right." It is likewise necessary to have the right kind of poultry. Good hens must have egg-producing food and egg-producing care. A hen cannot do her duty on scanty rations. The poultryman must be a business man and market his products where they can obtain the highest price.

Too many poultry-raisers are keeping hens, instead of allowing the hens to keep them. Why? Because they do not think. In the summer we must plan for heavy egg-production in the winter when the eggs are the highest. To make money in poultry, we must be good feeders, we must give ample food and of a kind that will produce eggs. Many poultrymen lose all the profits by keeping two hundred hens on the feed that would keep one hundred profitably. The most money is made where we almost watch and feed individually. Fowls like a variety of food. We should know the hens—their likes and dislikes. The health of the flock must be considered. Everyone who makes money with chickens loves them.

There is money made in keeping poultry, and living witnesses to this assertion can be obtained out of every section of our country. The poultry business is not to be despised. It is as dignified as any other occupation, and needs clear-headed business people to make a success of it.

MRS. B. F. WILCOXON.

Bulletin No. 141, recently issued by the United States Department of Agriculture, is entitled "The Improvement of the Farm Egg."

The Poultryman's Crook

THE shepherd's crook is not more useful in handling sheep than is an ordinary broom for handling poultry. Fowls can be driven almost anywhere, singly or en masse, by the use of a broom. Simply walk slowly, using the broom in either hand to direct the fowls as you go along. The bunch of "straw" at the end of the handle seems to have a magical effect that is not possessed by an ordinary stick. Set down quickly before a hen or chicken that is going the opposite way than you desire it will act as an instantaneous "mind-changer" and without frightening the fowl into a panic. The usual process of "shooing" biddy into the coop or out of the garden results in nervous prostration on the part of fowl and exasperation on the part of the individual. Use a broom, move slowly, say nothing, and biddy will go contentedly whichever way you wish.

O. E. CROOKER.

Windows in the Hen-House

I HAVE seen the windows in a hen-house "placed high up, so that the sun could shine on the roosts," as one man said to me! When the sun shines on the roost, the chicken is generally on the floor wanting breakfast, and when the chicken is on the roost, the sun has set! Put your windows low down, so that the sun will shine on the floor for the hens and chicks to stand in the sunshine on cold days, as they like to do. Mine are level with the floor, screened with two-inch wire netting.

CLIFFORD E. DAVIS.

Why Won't They Lay?

ONE reader who has some nice Buff Plymouth Rock chickens don't get any eggs from the middle of October to the last part of February or first part of March, and wonders why. He says the chickens have a roost twelve by eight and a scratching-shed twelve by ten and straw to scratch in, that wheat and oats are fed in the morning, corn at night, and about twice a week bran and corn-meal are mixed in hot water with little meat-scraps. Oyster-shells and dry bran they have all the time in a self-feeder, good water is supplied twice a day, there is plenty of light, and there are only sixteen chickens. Some are year-old chickens, and some are pullets.

The securing of eggs rests largely on having the pullets develop sufficiently in time to be ready to begin to lay before the cold weather gets too severe. After the weather

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gets wintry, if the pullets have not begun to lay, it is difficult sometimes to get them started until midwinter.

In the case of your old hens, the difficulty is ordinarily in getting them to molt sufficiently early so as to be in condition to lay early in the winter. Where the molt is delayed until about October, it will require at least two months before they will have recovered sufficiently to lay.

Where the pullets are well developed by the last of November, I have found that the following manner of feeding has proved successful: In the morning feed just sufficient of a warm, moist mash made up of a mixture of bran, wheat-middlings or buckwheat-middlings, meat-scrap, seasoned with salt and red pepper just sufficient to make the mixture palatable, to partly satisfy the appetites. Then soon after feed some wheat and cracked corn in the litter, which will cause them to get active in scratching for it. This scratch-feed may be varied so as to give a change, sometimes using a little barley or oats with a little sunflower-seed.

I have found that the real secret of getting the hens started to laying is to keep them actively scratching as many hours of the day as possible by feeding a small amount of mash, and feed grain in the litter, so that they will keep hungry and not mope around in the cold.


Where only a few chickens are kept, the scraps from the table can be well employed with the grain to form the moist mash. The ration should contain sufficient animal-food to cause some stimulation, and after the hens have got to laying well a little less of the stimulating food will answer.

When the chickens are handled in this way and are vigorous and healthy, there is seldom any difficulty in getting the eggs, although the young pullets will not lay steadily throughout the winter, as a rule.

B. F. W. T.

Corn-Silage for the Chickens

A CHEAP way to furnish your hens green feed all winter and get eggs as in summer is to supply silage. Last fall we built a small silo, forty-four inches across and twelve feet deep, and filled it with green corn cut one-fourth inch long. We commenced to feed silage to our flock the twenty-eighth of November, and we never missed a feed until May 15th, when we fed the last of the silage. Our eggs cost us just three cents a dozen, and during the winter months we got twenty-five, thirty and thirty-five cents a dozen for them.



Chicken silo and the outfit for filling it

Here is what we fed and how we fed it: We had oats and corn ground together, equal parts. We took three and one-third pounds, each, of this meal and wheat-bran and shorts, making ten pounds of ground feed. We placed one-half bushel of the silage in a big iron kettle, poured one gallon of boiling water over it, then we added the ten pounds of ground feed and stirred it thoroughly. This is just the right amount of silage, water and ground feed to make a crumbly mass to feed to the best advantage. The chickens eat everything but the cobs and the joints in the stalks which did not break up. This was the amount fed a flock of two hundred and forty chickens.

At nights we fed three gallons of corn, which was all they ever would clean up, and sometimes they would leave a portion of it. In the worst weather it only cost us thirty-five cents a day to feed them. In January we got as high as ninety-four eggs a day; in February, one hundred and thirty-four per day; March, one hundred and seventy-four per day; April, one hundred and forty-five per day, and May, one hundred and thirty-four per day. Is not that about all a man could expect from that amount of hens?

They continued to lay good until in July, when some of them began to molt, and now the first ones which molted have a new coat of feathers and are laying again. We raised over one hundred pullets this season, and built another silo, in order to have plenty of green feed to run the flock until green stuff is plentiful next year.

In connection with what I stated, give them plenty of good grit and all the clean water they want, as they cannot and will not lay eggs when they are suffering from the want of water. If one takes the proper care of the chickens, success is assured.

T. F. CLICK.

Don't blame the boy for wanting to go to the city. If you can't hold him on the farm, do not make him stay there against his will. And later do not blame him if he wants to return to the farm. Make it easy for him to get back.

Whole Grain for Hens

LAST fall and winter our hens were kept upon a whole-grain ration. No ground grain or cooked mash of any kind were used, and the hens laid better and were healthier than ever before.

Of course, they were well cared for in other ways, but they were not pampered. The house was rather small, but very comfortable. There are two apartments in the house, each being about ten feet square. In the center is a small feed-room and entry. Dropping-boards are used under the roosts, and this gives more floor-space. The boards were cleaned every few days and fresh litter put on the floor. The flock was about evenly divided, pullets in one part of the house and old hens in the other, there being fifty-two head in all.

Contrary to the usual way of feeding, we fed corn every morning, about six large ears being the usual quantity. This was not a large feed, just enough to keep the hens a little hungry during the morning hours. Then, when the next feeding-time came, which was two o'clock, they were ready to scratch. The corn was always warmed a little in the oven, before feeding, when the weather was cold. After the corn was eaten, they were always given a drink of warm skim-milk. Later, this was removed, what was left of it, and replaced by clear water with the chill removed. At two o'clock the hens were given four sheaves of wheat. No other grain was fed. Every day they were fed some cabbage and parings.

ANNA WADE GALLIGHER.

Adding Value

THE story of Mrs. J. M. B., in a recent issue, is an excellent example of what adding value by head work and hand work means. Someone at Rhode Island College, during its first poultry class, brought up the question as to whether a young man, in these days, could afford to raise poultry as a sole business. The boys argued that the profits on the poultry for the year were, in effect, the salary or wages received for work. If a young fellow could make better wages elsewhere, he could not afford to raise poultry.

That is not the whole story, because it is worth a good many dollars a year to be able to live in the open air, and it is worth a great many dollars a year to be one's own business master. This point the farm worker never quite understands till he has left the farm and worked under someone else in some rushing city, where firms often work short-handed in order to drive their men harder, and where a man has to do what he is told, whether it be clean or dirty work, actually or morally. All the recourse he has is to grind his teeth or to throw up his job.

One might question whether or not twenty dollars was good pay for the work of the family for a week, more or less. Many would say, "Yes," because it was done with tools on hand, and it was work which they understood, and could be done at home. A man thus becomes his own employer, in a commercial enterprise, and it is for him to say how much he will enlarge his business. I sometimes think that this is the essence of making money on a farm.

A man whom I met recently seemed to be of the same opinion, although we did not discuss the question directly. He was the chief of the Bureau of Farm Lands in one of our rich farming states, and was talking, primarily, about the so-called abandoned farms. He had some Chenango Strawberry apples on exhibition, and this led to the story he told me. The story dealt with a man who had bought one of these farms, so poor that the previous occupant could not make a living from it. He could not sell the apples referred to at all. The farm had been bought for a song.

The new occupant cleaned and pruned his orchard, and, in due time, he picked his Chenango Strawberry apples, polished them, packed them in small slatted boxes, wrapped singly in paper, labeled them "Strawberry Banquet" and sent them to a city market. The price realized came near five dollars a bushel, the chief told me.

Not every farmer could do this and keep up his other farm work. This fall, I heard farmers congratulating themselves on getting forty cents a crate for apples from a factory, because it saved the work and the cost of barreling, and did not exact so much culling. Every man must decide how much detail work he can do as a commercial stroke to add to the actual values of goods.

I looked over the place of a young farmer who, it seemed to me, was exemplifying more than any other whom I had seen the value of a quick, active brain joined to the actual work. He was running largely to hens, alfalfa and apples, and had a dinky little engine as faithful "hired man." He wasn't grumbling—not he. In fact, he was philosophical. He said he had noticed that where the men of a specified district raised everything on earth, the general appearance of the locality seldom changed noticeably. But where the farmers specialized, the whole neighborhood usually showed such signs of prosperity as new barns, houses, etc., going up. He expressed his belief that a farmer could make money from anything if only he would specialize on it and learn all about it.

C. S. VALENTINE.

Announcement Extraordinary!

A NEW Sherlock Holmes detective story will be found complete in the December **AMERICAN MAGAZINE**, now on sale.

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THE instalment of Senator La Follette's Autobiography in the December **AMERICAN MAGAZINE** tells of the Senator's first meeting with Reed, the "Czar," an amusing social mix-up with Roosevelt, then Civil Service Commissioner; a clash with Hanna; his first tariff speech answering the great Carlisle; Sherman and the trust problems—new then; Blaine's later days, and much about McKinley, with whom La Follette was thrown into intimate relations.

In the January number Senator La Follette will relate an experience which he calls the turning-point in his life. It is an intensely impressive and dramatic history of an attempt to bribe him to use his influence improperly with a judge.

IF you ARE an extravagant wife, or if you HAVE an extravagant wife, you should be reading H. G. Wells's new serial novel, "Marriage," just beginning in **THE AMERICAN MAGAZINE**. It is a story of getting and spending; of a young woman seeking romance but demanding luxury; of a lover who fell from the clouds; of a wife swept into the current of to-day's extravagance; of a husband spurring his powers unceasingly to satisfy the wife's lavishness; of the tragic strain upon their relationship, and of the wonderful and adventurous means by which they readjust their life together.

THINK of a man spending 20 years in one of our penitentiaries for a murder that another committed! Think of an innocent man barely escaping execution! The true story of this case is fully told in the December **AMERICAN MAGAZINE**. The victim, recently pardoned, has just reached Hungary and rejoined his wife, whom he had not seen for 27 years.

READERS of **FARM AND FIRESIDE** ought to have **THE AMERICAN MAGAZINE** in their homes regularly. It is really a wonderfully interesting periodical. The December number (price, 15 cents) contains six or eight additional stories and articles fully as notable as the four mentioned above. **THE AMERICAN MAGAZINE** is published by the publishers of **FARM AND FIRESIDE**, and the following special offer is made:

We will send **THE AMERICAN MAGAZINE** to any **FARM AND FIRESIDE** reader for a year for \$1.50, and we will send **WOMAN'S HOME COMPANION** for a year for \$1.50. We will send both **THE AMERICAN MAGAZINE** and **WOMAN'S HOME COMPANION**, each for a whole year, for the special price of \$2.30—a saving of 70 cents.

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GARDENING

By T. GREINER

An Ideal Fall

GERMAN poets have sung of "the wondrously beautiful May." Our fall season, usually fine, has up to this time been such as to enrapture us all; not the poets only. Simply ideal it was! This last week of October we have as fine lettuce as we ever had, and this in greatest abundance, fresh from the field. We have spinach, winter radishes and summer radishes, kale, etc. Our late-planted Winningstadt cabbages have made the closest little heads, much finer in texture than the usually somewhat coarse Danish Ballhead. Red (table) beets sown in early August are still growing, and now give us nice little beets for pickling and doing up in cans.

Portugal and Vaugirard onions sown in early August have made an unusually big growth again, and at this time look very promising. It is true that we court failure when making very late sowings of beets, carrots, lettuce, radishes, or when setting cabbage-plants very late. If the season is unfavorable, we may not get much for our pains. But seed is cheap, and no great labor or effort is required. We cannot tell beforehand how the late fall will turn out. If that had prevented me from sowing these various things when I did, we would have missed much. It pays to take some chances.

Mushrooms in Plenty

This has also been an ideal fall for wild mushrooms. The old pasture-fields have been overrun with them. We have had our fill of the common meadow agaric. For weeks and weeks we have had them on the table, in one form or another, almost daily, until, like the children of Israel, we have become almost nauseated by the sight of our frequent dish of "quail and manna." In a few weeks, however, I am sure we shall again wish for the toothsome "toadstool." So, even after all the failures I have had to record in my attempts to grow mushrooms artificially, I am again preparing a quantity of horse-manure with the idea of starting a bed under the greenhouse bench. I may not get a full supply and a paying crop, but I usually get some. The mistake we have often made, I believe, is in using our horse-manure too fresh. It should be so well prepared and composted,

I am told, that it presents a homogenous mass of chocolate-brown color, and cannot be recognized as horse-manure by either sight or smell. In composting it now I am mixing a quantity of dead leaves with it.

A Mammoth Husk-Tomato

We have just gathered a big lot of the Giant Purple Husk-Tomato. It is as easy to gather a bushel of it as to gather a peck or less of the older yellow husk or "strawberry" tomato. The latter makes a low trailing bush, the fruit being of cherry size, sweetish and good for pies and preserves. The bush of the purple husk-tomato, which probably is a native of Mexico and seems to require a very long season to ripen its fruit, is a strong and erect grower, and the fruit reaches a diameter of two inches, being tightly enclosed in the husk, so tight, in fact, that the husk often has to burst open. In its inner make-up, as can be seen on cutting a fruit through the middle, it closely resembles the ground-cherry or cherry tomato. I hope to find it equally suitable for making pies and preserves. The Mexicans are said to use it for making chili sauces and as a dressing for meats.

Sterilizing the Soil

I have been asked how to treat greenhouse soil so as to kill grubs that seem to be plentifully present in it. Probably the best thing to do is to open holes to some depth in the soil to be treated and pour a quantity of carbon bisulphid in each, then closing the hole, and tightly covering the surface of the soil. That should dispose of all living things in it.

The formalin treatment now so much resorted to will also kill all living beings in the soil. The soil is to be soaked with a formalin solution (forty per cent.): one pound in fifty gallons of water. This will not only kill worms and grubs, but also harmful bacteria and fungous spores. The treatment, however, ought to be given six or eight weeks ahead of the time that the bed is to be planted, for the formalin fumes are deadly to plant life as well and must have a chance to escape from the soil. In soils thus treated you are not likely to be troubled with damping off and with the various plant diseases that are carried over in infected soil. In a small way we can accomplish the same end, as, for instance, when we have seedling-flats in which to start plants subject to disease attacks, by exposing the flat containing the soil to strong heat, say in an oven, or in a larger way, by exposing the bed soil to steam heat. I remove every bit of the old soil from my greenhouse benches, and put in fresh soil directly from the garden or a field of sandy muck, and seldom have any trouble from damping off or similar seedling diseases.

Is It a Hardy Rhubarb?

Last winter I received from a seedsman in Australia a parcel of a new rhubarb, said to yield good leaf-stalks fit for use the first year from the seed. The plants were started in the greenhouse and transferred to open ground in spring. Only three, however, escaped the fate of being turned under by a careless plowman. All three are yet green and making good growth, one especially giving us now stalks for the table, while the common-rhubarb patch has given out weeks ago and hardly showing any sign of top. This plant seems to be quite hardy. I doubt its being identical with Burbank's new "Crimson Winter" rhubarb. I had plants of this, both directly from Mr. Burbank and grown from seed obtained from an eastern seedsman. I did not, at the time, find much in it to make me wish to continue growing it. I have some hopes for this Australian plant.

Some Good Composts

Last spring I had a good many loads of fresh manure drawn on my rhubarb-patch, enough at any rate to cover the ground between the plants at least three inches in depth, and choking out all weed-growth during the entire season. Of course, this application told in the growth of the plants, and gave us a finer lot of rhubarb-stalks than we ever had.

The surface of the patch is now covered with this well-rotted manure, with some soil mixed in. I have often been at a loss where to get good compost for my greenhouse benches in the fall, as this matter is often neglected when we ought to attend to it; namely, in the forepart of the season. That is the proper time to make a compost-heap, by piling up alternate layers of sods cut from an old pasture and of horse-manure. I am now taking this surface layer off my rhubarb-patch, and pile it up on the greenhouse benches. It is just in the right condition now to make a nice soil in which to grow winter lettuce and radishes, loose and mellow and retentive of moisture. I shall add a portion of sand to it, also a little lime. For growing tomato-plants and cabbage-plants, however, it is far too rich, and the soil for one of the beds, to grow these plants in, is taken from the garden, where there is just ordinary good garden loam, without extra additions of manure other than perhaps mineral fertilizers.

Winter Pruning

WE HAVE concluded to do some winter pruning this time, if we get time, for when spring comes there are the hundred and one jobs to do, besides the regular farm routine of work, and the pruning is to be done when the ground is too soft for other work, or, in fact, any time we can work at it, when the frost is out of the tree.

We are not going to "cut and slash" around the bodies of the trees much, but are going to do a lot of top pruning, for it is our desire to train our trees low, a practice we have been following for years, and we find it economical, inasmuch as it costs less to spray, costs less to thin and to pick.

We will use some paint on the freshly cut limbs, where they are large enough to need it.

We try to get our apples to mature mostly on the "outside" of the tree, thinning out many of the little green fruits close to the body, for these always lack size, color and flavor.

I think the prunings will be burned, and a tobacco seed-bed made where the brush-pile burned.

OMER R. ABRAHAM.

It was about six hundred years ago that the government of France offered a special prize for the most practical method of preserving food. Now, we have canneries in all civilized countries engaged in preserving food by using the sterilizing process.

Odd Notes

The shortage in the Japanese peanut crop this year is estimated at seventy per cent. of the average.

The supply of eggs in cold storage in New York City is reported to be in excess of the ordinary supply. This will probably make the prospective demand a light one.

Uvalde, Texas, is reputed to be at the center of the leading honey-producing section of the state. Several car-loads of honey have already been shipped from that point.

W. M. KING.

John H. Haynes

FARM AND FIRESIDE readers will regret to learn of the death of Mr. John H. Haynes, of Delphi, Indiana, at his home on November 2, 1911. His work as a farmer, as a horticulturist and as a writer was of the highest type. His influence has been great. Many homes will be made sad by the loss of this friend of farmers and of farm life.

The Sparrow-Hawk

THESE birds are the smallest and most handsome of the hawk family. They destroy the rodent pests that infest the farmers' fields and barns. Field-mice are their chief food; grasshoppers, in season, are also eaten in large quantities, as well as are other insects. Unless all such food should fail, the sparrow-hawks will not molest the song-birds, and rarely is one of them ever guilty of visiting the poultry-yard.

From their "lookout" perch they scan the meadow for mice or grasshoppers; and it is a charming sight to see them as



they hover high above the fields and then drop like a shot on some prey below.

A farmer friend of mine, who knows the birds and appreciates their value, has had a pair of these hawks build their nest, for several seasons, on the framework in the top of his silo; they enter in the top opening, which is left uncovered in the summer. He does not molest the birds, and they do not kill his little chickens.

Their cry is "Killy, killy," and "killy" the mice they do. They deserve being placed on the protected-bird list.

H. W. WEISGERBER.

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Garden and Orchard

Who Knows What a 100% Apple Crop Would Be?

REGULARLY each month, for a long time, "Bill" Stewart, an apple-grower in West Virginia, had been receiving from the statistician of the Department of Agriculture blanks asking for his report on local crops. As regularly he had read the instructions about filling in his estimated percentage of a full crop, had muttered to himself disgustedly, "Who in thunder knows what a 'full crop' would be, anyway?" and had consigned the crop-report blanks to the kitchen stove.

About the first of August, however, "Bill" decided to place an order for apple-barrels, so as to get the right barrels at the right price. With his foreman, he spent a whole day going through his orchard, comparing the crop on the trees with the crop of two years ago, as they remembered it at the same time of year. The comparison convinced them that the present crop was over twice as large as the one of two years ago. As the latter crop amounted to over 6,000 barrels, it was evident that this season a contract should be made for 15,000 barrels, in order to be sure of a supply. This was done the next day.

Neither "Bill" Stewart, nor "Bill" Stewart's neighbors, for that matter, were interested in making a wild guess at the percentage of an imaginary full crop—something that never had existed in their orchards and

and then, after the manner of the Jew clothier, ask twice as much, in the hopes of finally getting some figure half-way between.

Not caring to take the risks incidental to storing his apples with such meager data at hand, he sold his apples early, convinced, however, that the buyer, who was willing to take the gambler's chance, really did not have any more positive information about the condition of the crop over the country than he did himself.

Being aggressive, however, Stewart believes that it is "up to" the fruit-growers to get after the Department of Agriculture, so as to have available in future seasons apple-crop reports of some value. He proposed for one thing that the West Virginia Horticultural Society petition the Department of Agriculture to assign a special man to the subject of apple-crop reports, that this expert consult with fruit-growers over the country as to the most effective means of collecting and issuing crop reports (for instance, whether in terms of barrels as Stewart believes, or in percentages as at present), and work out with much care a set of uniform instructions for the guidance of the growers in making estimates.

He further proposes that at the winter meeting of the West Virginia Horticultural Society a prominent place on the program be given to the subject of "Crop-Reporting" with the expectation that the above-suggested expert from Washington be the speaker, and that this expert aim to so educate the members of the society in the details of crop-reporting that every member will be able to report to the state statistician on the same basis, and will furthermore feel it his duty to make such report.

Now, then, if every other state horticultural society will make a similar request of the Department of Agriculture, and will

be done in later years. If one studies the growth carefully, they can determine just where the branches will grow from the direction they start from the base.

The second year the surplus branches should be cut out, and the foundation branches pruned back from one fourth to one half, according to the variety, in order to make a strong foundation base for the top that must be developed later. In pruning, avoid the formation of crotches, as they are sure to cause trouble later by splitting when loaded with fruit.

The third year the trees should be pruned about as for the second year. At this age do not remove the short, stubby branches that form on the older wood, which are known as fruit spurs. When the tree is four years old, and about to produce a small quantity of fruit, keep the top just sufficiently open to allow the sun and air to get in without making an open or bare appearance.

The fourth and following years, and until the trees begin to bear, foundation branches should be cut back annually sufficient to make them strong and heavy enough to bear the loads that will be put upon them later. After fruiting, not much pruning is necessary, except to thin out surplus growth and keep the trees symmetrical in shape. In pruning, prune from the top down, and not from the bottom up.

In cutting or sawing a limb from the trunk, or a small limb from a large one, the cut should be made close up to the trunk so as to leave no stub. The large wounds should be covered with a good, heavy-bodied lead-paint made of linseed-oil and white lead.

B. F. W. T.

Late Strawberries

THE long-cherished dream of an ever-bearing strawberry has certainly come true. Three or four years ago a few enterprising plant-dealers offered the Pan American strawberry with the assurance that it would bear both early and late, but most people accepted the statement with several grains of salt. Some of the more credulous bought plants, however, and were delighted to find that their fears were not justified, for after the plants had borne one crop they went bravely to blossoming again. These blossoms bore good crops of fruit in September and October. It was found that by picking off the first blossoms a good crop of berries could be obtained in August.

A little later a seedling of the Pan American was introduced under the name Autumn. It had the same fall-bearing habit as its parent, but, as it was a pistillate variety, it required that Pan American plants be near it to fertilize the blossoms.

Since then at least four other fall-bearing varieties have been announced. One of the most promising, called Productive, is the result of a cross between Pan American and Autumn. Another, called Superb, is a cross between Autumn and Cooper. Two that are New York favorites are Francis and America.

Like most good things when new, these plants are expensive. I paid two dollars and fifty cents for twenty-five plants last spring, and, when they arrived, most of them showed by their roots that they were old plants, and these died. A few were young, however, and grew very well, blossoming in August. A neighbor near my farm in northern New Hampshire was more successful, buying a few plants, most of which lived. He gave each hill a good application of a complete commercial fertilizer, and was rewarded by a good crop in June. I saw his plants September 1st, and each was then loaded with great fruit trusses, having blossoms and green berries of all sizes, ready to ripen that month and to furnish fruit until the killing frosts of October, or even later under the protection of a cold-frame.

As one would expect, these vines do not bear fruit and send out new runners freely at the same time. My plants did not start a runner, nor did those of my neighbor up to September. Probably removal of the flowers would increase the formation of new plants.

This new type of strawberry furnishes fascinating possibilities for the future in home gardens as well as for the commercial fruit-grower. It will probably be worth while to cut off the first crop of blossoms, in order to make the main crop come in August, and thus conserve the strength of the plants.

Some of these strawberries seem to revert to the normal type of one-crop berries, and such plants are likely to send out many runners. This affords unscrupulous dealers an opportunity to sell such plants as true fall-bearing ones with a show of good faith. The more honest dealers keep up a constant selection, however, to assure their customers of getting the real thing. Consequently it is worth while to patronize dealers of good reputation rather than to hunt for bargains in these plants.

C. M. WEED.



Delivering the apple-barrels to "Bill" Stewart's

probably never would. But the demands of the approaching picking season forced them to estimate their crop in terms of barrels, so as to be prepared to handle the apples without delay. If, therefore, the Department of Agriculture had sent to "Bill" Stewart early in August a blank asking how many barrels of commercial apples Berkeley County estimated, he could easily have talked with his neighbors and with the cooperage people and have given an estimate based on such definite information as to have been of real value. For, in his section, Stewart's crop was rather exceptional. Most of the large commercial orchards were in their "off" year, and, as a matter of fact, cooper-shops were not planning to make ready quite as many barrels even as last year.

Meantime, a certain live-stock man at the other end of the state, in filling out his crop report, noticed the blank space under the word "apples." He remembered that the summer-apple trees in his barn-yard seemed full, and so put down ninety-five per cent.—allowing the five per cent. probably as a margin of safety. As a result, the government report for August showed a large crop of apples in West Virginia not warranted by actual conditions.

But what particular difference did this make? Let's see. Let's go back to "Bill" Stewart.

His plans for picking his crop perfected, the next big problem before him was the determining of a price at which to offer his apples. On the morning after the Detroit meeting of the International Apple-Shippers' Association, his daily paper contained a news item from Detroit to the effect that the apple crop of the country would be one of the largest ever. The "inspired" nature of this report was at once recognized and its statements discounted accordingly. But how was Stewart to know that it was not true?

The absurdity of previous reports from his state had completely destroyed his confidence in the government reports. In the fruit and farm papers he found hundreds of personal letters from growers, living mostly outside of the big commercial apple-growing sections, each taking advantage of the chance to give his own individual crop some free advertising. But nowhere could he learn of any "authority" to whom he could go in confidence.

Nothing, therefore, was left for him to do but wait for some buyer to make an offer;

give the department's expert a prominent place at its winter meeting, there will be, even next year, such a body of uniformly trained apple-crop reporters from all parts of the country that the government statistics next season will have the confidence of growers and buyers alike; and a considerable part of the purely gambling feature of the apple-marketing business can possibly be eliminated.

"Bill" Stewart of West Virginia thinks the possible result is worth the effort. How many growers in other states are willing to help?

N. T. FRAME.

Young Apple Orchard

THE following statement comes from a reader in Ohio who is deeply interested in farming of all kinds, but especially in fruit:

I have a young orchard of apple-trees with a few plum and peach trees set out in 1909 and 1910.

One of the state inspectors advised me to cut off two thirds of the first year's growth on the apple-trees after they had been set out one year. I did so, and some of the trees made a growth of over three feet this year. Shall I shorten this growth next spring? If so, how much, and shall I continue to cut them back each coming year, and how much?

How shall I prune the plum and peach trees? They have made a good growth. Please give advice for several years.

The desirability of cutting back fruit-trees severely or moderately is governed by the varieties of the trees and the character of the soil, its fertility, etc., but it is now more important than formerly that the heads of the trees should be kept comparatively low, in order to be able to spray every portion of the tops thoroughly. It is now out of the question to expect to succeed with orchard fruits, unless spraying is done just as systematically and regularly as the fertilizing and cultivating has to be done in order to succeed.

In shortening and pruning the growth, it is essential that the pruning be done every year, and not wait to do too severe cutting back later. The first year the pruning should be only sufficient to make the trees symmetrical. If the trees are making too long a growth, the ends of the shoots should be pinched off to check them, and this summer pinching of unsymmetrical branches should



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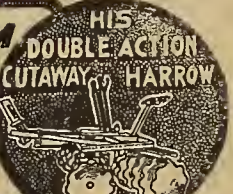
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Storing Celery

NATURALLY, when one has a good cellar, he wants to use it for storing all kinds of fruit and vegetables; but there are some that cannot be kept in a cellar through the winter with any great degree of success. Among these is celery. It is essential that celery roots and stalks be kept in contact with moist earth, in order to keep crisp and blanch well. I have tried planting the bunches in a box of earth in the cellar, watering frequently to keep the dirt moist, but I had indifferent success, even with the most careful attention. It would be much more convenient to go to the cellar when the ground is frozen, but I have found it a good plan to take out a few bunches and keep in the cellar for immediate use, leaving the greater part in an outdoor pit. If the weather is dry in September, one must be careful about banking up, as warm, dry soil will cause it to rot. We cannot everywhere practise the methods of the great celery-growing sections of the North, where it is always cool and moist through the late summer and autumn, and celery should not be banked more than would be done in the cultivation of other garden crops before cool weather, which usually comes in September. After a light frost and cool nights more dirt may be drawn up to it after it has been tied, so as to draw the stalks in a compact bunch.

A very good way to do this tying is to take a ball of small twine, and, beginning at one end of the row, tie the end of the string around the first bunch; then, holding the next bunch in the left hand, make one turn of the string around it, drawing the leaves together near the top, but not too tight; then on to the next bunch, never cutting the string. This can be done very rapidly, and is of great advantage, as it keeps the dirt out of the center of the bunch when banking. About a month after it has been banked first—and I wish to say that when I first draw the dirt to it I only bank about half-way to the top—it will be time to protect from freezing weather. The banking may be finished and the celery allowed to stand through the winter right in the row where it grew, but this is a very laborious method, as it requires the handling of so much dirt in order to bank in sufficiently to keep from freezing. For the final banking I wait till the ground is beginning to freeze at night, provided the tops that are out of the ground may be protected in some way, but it should not be allowed to freeze hard, for celery cannot stand a hard freeze like cabbage or turnips. Frost, or even a light freeze, will not hurt it, however. Dig a trench a foot wide and half as deep and as long as needed to store your crop; then dig or pull the bunches, leaving the roots on, and taking off the string with which it has been tied. Set the bunches in the trench in an upright position, placing them close together; then draw the tops together and bank the dirt up from each side till all is completely covered, adding straw or fodder to keep from freezing. The celery, when put away thus, say the first of November, will be only partly blanched, but in a few weeks it will be ready for use. I have found that celery put away and blanched early would not keep so long as that which has been left in the row till the very last minute. While it cannot stand a freeze, celery will stand and even grow during the cool weather of autumn. It will be necessary to dig the pit on well-drained ground, but no covering except dirt will be necessary, as what rain falls on the banked earth will not injure the celery. The only advantage in adding straw or litter to the dirt mound is that in this way the ground may be kept from freezing, and the celery be readily taken out, even in freezing weather.

The gradual drawing of the dirt to celery the first cool weather, as well as tying the

bunches, makes it grow in better form. It is not necessary or desirable to bank a great deal till ready to store in the pit, provided one expects to do this early enough to escape danger of severe freezing. When banked nearly to the top, there will be no hurry about storing for winter, as it can be quickly protected from an ordinary first freeze, though it should come suddenly.

H. F. GRINSTEAD.

It is Always Celery-Time

WITH the cooler weather and the more generous rainfall of early fall, celery has made rapid and succulent growth, and if to be used before winter should now be either ready for use, or blanching under boards or earth covering. It is very good at this time (October). We eat it every day. If we had to buy all that we now consume in the family, it would cost us a lot of money. As we dig it in our own garden, we do not worry about its cost. We enjoy it and let it go at that. Many of our neighbors have to go without it, at least as a regular dish. I still grow the Chicago Giant mostly, with smaller lots of Golden Self-Blanching and White Plume, the latter merely to have it in comparison with the first-named. Chicago Giant is of remarkably strong growth, and good enough when well blanched. A good strain of White Plume is not bad, either. Golden Self-Blanching is shorter, and more compact in growth. I never saw finer celery, as a market crop, than I found on the muck lands at South Lima, New York, a few weeks ago. The only variety grown largely there is this Golden Self-Blanching. It is the only variety I now find at our grocers', and on the markets in Buffalo, Niagara Falls, etc. Giant Pascal is grown on a smaller scale for winter. I used to grow it, for its quality is unsurpassed when it has become nicely blanched in winter storage. I am trying another sort (Self-Growing) for winter this year. I always found Giant Pascal hard to bleach. My early celery is blanched under boards. When you have a supply of boards, which should be not less than ten, and preferably twelve, inches wide, it is the simplest and cheapest way of blanching celery. As fast as a blanched lot of plants is taken from under the boards, the latter are moved along to another lot not yet boarded up, and this lot will be ready for taking up in two to three weeks of good growing weather. Thus the same lot of boards is often used for three or even four different lots of celery. Usually we begin boarding up on one end of the long rows and shove the boards along from time to time until the further end is reached. The balance of the patch, for which we have no boards, is banked up with soil. The rows, for this treatment, should be five feet apart, and the earthing-up, or banking, done with plow, hoe and spade or shovel. Only the tips of the foliage are allowed to stick out above the earth covering, and the plants usually blanch well in three weeks or less time.

T. Gr.

Weather is Boss

SUCCESS with our vegetables depends very much on weather conditions, even more so than on the skill of the gardener. We found that out this year in growing early potatoes. The tropical heat in the fore part of the season, with long days, was too much for that crop. I do not know a way in which the vines could have been protected. Then again we find our celery and lettuce this fall not nearly so good and sweet and brittle as we had these vegetables last fall. The difference? Last fall we had abundant rainfall. This fall it was comparatively dry. For some vegetables we need heat, as for tomatoes, eggplant, melons and sweet corn. Without the needed amount of heat we will not get these things in perfection. We cannot help ourselves except to some extent by selecting the warmest and driest spot in the garden for them. We do not have to let the weather boss us altogether when it chooses to be dry in late summer and fall. Often there is a way to supply water by artificial means, and to raise celery, lettuce and similar crops to perfection even in a dry time. In many cases fine opportunities are overlooked and remain unutilized. I am just laying a pipe from the village water-mains to my house, from there to the greenhouse and thence into the garden. Many suburban home gardeners have an abundant water-supply in their houses, and can easily get it into their gardens. It will pay in many ways.

Why depend on the vagaries of the weather in all things?

T. Gr.

As you are unusually busy during the open season—planting, tilling and harvesting—no doubt you do not have time to read FARM AND FIRESIDE as thoroughly as you would like. But now that you have leisure look it over carefully and see how many new articles are offered for sale. Write to the advertisers for catalogues and samples, for it is surprising how much valuable information you can thus obtain. When a manufacturer has something important to sell, he advertises it so people may know of his new product. The advertisers in FARM AND FIRESIDE are all reliable, too. You may patronize them with as much confidence as if they were your near-by neighbors.

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Crops and Soils

The Wearing of Soils

THERE are few worn-out farms where the plant-food is exhausted. It may not be sufficiently broken down for plants to use it, or it may be formed into compounds that will not dissolve in soil-water, but it is nearly always present in sufficient quantities to grow profitable crops if the correct methods are employed to liberate it. The soil must be put into proper physical condition, cleared of foul-growth, and humus added to it. Even where the surface soil has been greatly depleted, good results are possible if one but remembers that "there is another farm under the one you work." Deep-rooted plants, such as clovers and alfalfa, will bring much of this buried fertility up, and deposit it by their roots in the surface soil.

In any restoration of worn soil the main remedies are two: putting the soil in good physical condition and the addition of humus. The first object is accomplished by a thorough and timely working that will leave it porous to a degree, mellow and sweet. This will break down the crude plant-food and favor growth of the soil-bacteria. They cannot develop in a cold, lumpy, sour soil, and without them the soil is lifeless and barren. The action of air and sunlight and freezing must be brought to bear on as many of the soil-grains as is possible prior to seeding; hence, in plowing, the furrows should be turned up loose and crumbly.

A plant cannot feed on many of the mineral elements of the soil as they exist. Some transformations must take place.

Sometimes, when the soil-elements have united into chemical compounds that good tillage will not overcome, the use of an "amendment" is necessary. Lime is such a one, either slaked or in the shape of finely-ground limestone, or marl. These are also elements of plant life in a degree. Especially to corn, ashes, and rarely salt, have a similar value.

There is never much to be gained by summer-fallowing a piece of land. It is allowable perhaps if entirely overrun with weeds, but wherever possible a cultivated crop should be grown. Fertility is being constantly made in the soil, and if left bare it will be largely lost by evaporation and leaching. If summer-fallowing is unavoidable, it is wise to sow a late crop at least, for forage, or, better yet, for green manure.

But the important point in soil-renovation is the addition of humus, either in the form of manure, or green crops plowed under. This improves the texture of the soil, makes it warm, friable, and increases its capacity for taking and holding water. This last is a most important consideration. A crop fails more times from lack of moisture than from lack of plant-food. Plant-food can only be of use when in solution—no moisture, no solution. The humus holds the moisture with its dissolved plant-food. Without it both are lost by evaporation, surface-washing and leaching. Rye, buckwheat, vetch, peas, are all good to plow under for the making of humus. Manure is, of course, better, but not always to be had in sufficient quantities. Perhaps the best way of securing humus is by means of clover, grown as part of a rotation, and plowed down. It is better because of the nitrogen it adds to the soil and the fertility it brings up from a depth to which grain-roots do not go. Even when commercial fertilizers are used, they are speedily lost if the soil be lacking in humus to hold the solution they make with the soil-water. WM. JOHNSON.

EDITOR'S NOTE—These remarks are of value everywhere. Some of the theory might be questioned, but the results on the farm would be just as the writer has indicated. The important point to such matters is that they be studied carefully.

Milo for Dry Farming

EXCEPT that the true dwarf varieties are best in our Nebraska experiments, we find little difference between varieties of milo. One thing about all the sorgho group is that it is useless to try and force the season. Milo planted April 15th was not as far along as that put in May 15th or even later, and our best field was sown June 15th. With us the crop is listed in because of ease of planting and tending, then it stands drought better than surface planted. As soon as the row can be seen by appearing shoots, then the field is gone over with a disk-cultivator, throwing the dirt out, at the same time loosening soil each side of the plants, covering weeds by the row, and getting those on the furrow side. If a dry season is imminent, the field is harrowed right away. The most of the farmers only cultivate.

Barring chinch-bugs, all the sorgho group, say the three durras (brown, yellow milo and Jerusalem corn), Kowliang, amber orange and planter canes, will go ahead and rival corn's grain yield, here in Nebraska. Of course, where there is over fifteen inches

precipitation a year, corn will go ahead. Milo and the other two durras are grain crops first and last, though, if planted thick and cut green, one could use each as a forage crop.

But where seed is matured, the operator will get just grain and the leaves. Milo planted by June 1st ought to be out of the frost's way by September 15th. If a farmer in our latitude with a low rainfall wants to grow sorgho grain, milo will answer best of all, but if he is looking for forage, especially for milch cows, Kafir will more nearly meet his requirements.

Just one more word. It is said the sorghos are hard on ground. Be this as you look at it, I know that all the sorgho family is going to take enough moisture out of the soil to mature itself, if it's to be had; and so in extra dry years an operator can expect no moisture left for wheat-growing until more comes from above. Corn stops calling for water early in the summer, say August, but the sorghos demand it all along until frost. C. BOLLES.

Value of Kafir-Corn

AN OHIO reader who is interested in Kafir-corn asks how to cure the fodder and grain, and as to its feeding value.

This grain was brought from semi-arid regions of the Old World and is best adapted to our districts of similar soil and climatic conditions, but it is nevertheless being grown quite successfully in the humid portions of this country south of the forty-second parallel or south of the southern boundary of Ohio.

Naturally, in the more eastern sections this grain does the best when the seasons are driest.

The culture of this corn is quite similar to that given to maize, although it will succeed better on poorer soil than maize. If the Kafir is to be grown for grain, the ground should be given thorough preparation as for ordinary corn and the seed drilled in listed furrows, three to three and one-half feet apart, plants five inches apart in the row. Three to six pounds of seed will plant one acre.

When planted for forage, the seeds are drilled about one inch apart in the row. Care should be used to get seed free from mold, and the grain should not be planted until the weather is warm and settled. The after care of the crop is essentially the same as for maize.

The grain should be allowed to get fairly matured for harvest. It may be cut and shocked like corn or the heads removed from the standing stalks.

If fodder is desired for feed, it should be cut and shocked the same as corn, but not tied too tightly, or else it will spoil.

Kafir contains a higher per cent. of starch than maize, but less oil and protein. In feeding tests, it has never been found quite equal to corn, but the fodder is considered equal to corn-stover. Care must be used in feeding the young growth that sometimes sprouts from the Kafir roots after cutting, as under certain conditions this growth is poisonous to stock. B. F. W. T.

Broom-Sedge and Japan Clover

IN A late issue of FARM AND FIRESIDE, Robert Bradfield tells us he puts up broom-sedge in the winter, and uses it for bedding his stock. I know by experience it is a fine grass for bedding if cut in the green state when about two feet high. If you cut it after it matures, and use as bedding, you will be certain to seed the plat you put it on in the spring, and it will take good cultivation to exterminate it. In this part of Virginia, on the stiff clay soils, we have a great deal of broom-sedge and Japan clover that grow very well together, but the clover finally eats the sedge out. When the sedge gets about eighteen inches high, the farmers here cut it along with the clover, and together it makes a good hay for winter feed for the work-teams, and when a proper ration of corn is given, the teams keep in good order. Japan clover appeared in our lands here about fifteen years ago, and is spreading rapidly. Besides making a good pasture for all stock, it improves the land, and will grow on land that is so poor it will produce nothing else.

To those wishing to get a stand of Japan clover where it does not spring up itself, I would say it must be seeded in the spring after all danger of frost is over. If sown in the fall, the first frost will kill it out. It falls down and re-seeds itself every year. If intended for pasture, don't graze too close the first year. Broom-sedge and Japan clover are a good team, only exceeded by Bermuda grass and Japan clover. E. W. ARMISTEAD.

No Fertilizer versus Fertilizer

A FEW weeks ago I drilled a field of buckwheat for a neighbor. After I had drilled a round or two, the key-pin which runs the fertilizer-distributor broke, and there was no fertilizer applied for about one round. The season has been so dry since this work was done that it looks as if no crop could grow. Where the fertilizer was not applied, the buckwheat is not six inches high, and looks as if it would be a complete failure.

Where the fertilizer was applied, the buckwheat is three times as large, and looks to be in a much better condition than where no fertilizer was used. This is a striking example of the benefit to the crop derived from a moderate application of fertilizer. The buckwheat had about two hundred pounds of acid phosphate, analyzing fourteen per cent. available phosphoric acid per acre.

Another plain point in connection with this crop: there is a prevailing opinion among farmers that a fertilizer tends to burn up a crop during a very dry season. It is a plain case in this instance that the fertilizer did not burn the crop, but upon the other hand it helped the crop to grow in spite of the drought.

It may be that fertilizer in the hill alone will keep the plants from developing a natural root system and thus induce conditions that would injure a crop during a severe drought, but when the fertilizer is distributed all through the soil, it will be a benefit to the crop during very dry seasons. The kind of fertilizer and the manner of applying it to the crop are both largely responsible for our successes or our failures in the use of commercial fertilizer. A. J. LEGG.

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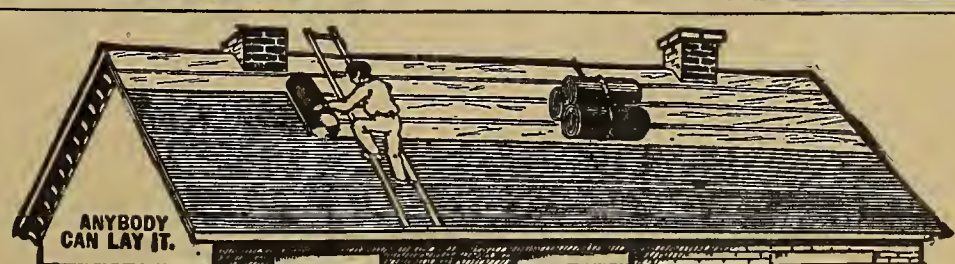
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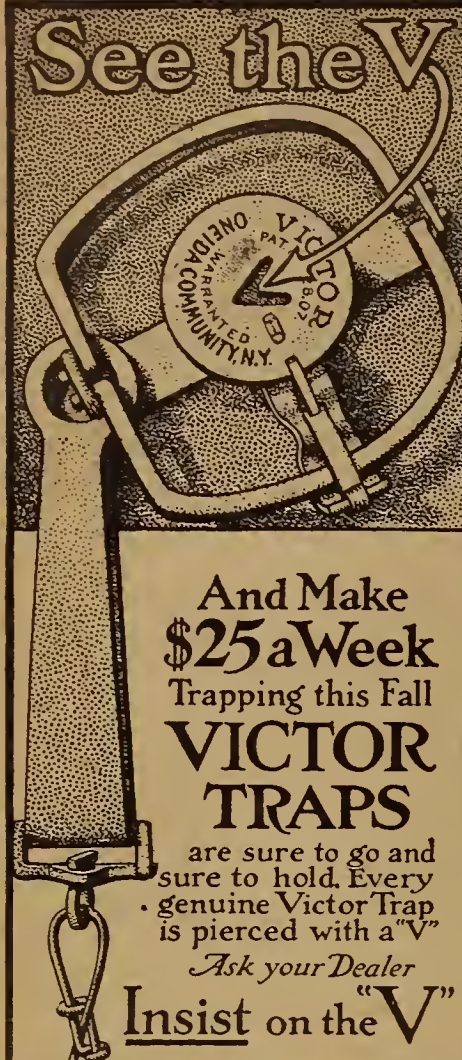
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POINTERS ON TRAPPING

ALL KINDS OF
FUR BEARING ANIMALS
USUALLY FOUND ON THE FARM
BY DAVID E. ALLYN



Pointers on Traps, Boards and Stretching



THE trapper, like all other men of trades—and trapping is a trade—should cultivate pride in taking care of his tools—his traps and other accouterments necessary to his business; especially is this so with his traps. They should never be allowed to become covered with a thick, heavy coat of red rust, and should always be kept clean and free from blood and scents of all kinds, especially of the different fur-bearing animals than the one he is trapping for.

Traps can be cleaned very easily by making a strong lye from wood-ashes, in which the traps should be boiled half an hour; then boil a few minutes in clear water, to rinse the lye off. Now take a good-sized pailful of walnut-bark—inside bark—or, better, a pailful of walnut-shucks, and put in a large kettle, and add a pailful of water, and boil until it makes a strong, dark-colored liquor. Remove the chips or shucks, and immerse a few traps, and let them boil a few minutes—fifteen or twenty—and remove them. If they have a blue-black appearance, hang them up to dry while hot. Do not wipe dry, as you will destroy the coating imparted by the liquor. Gray-willow or soft-maple bark is often substituted when walnut cannot be obtained.

Do not, under any circumstances, put decoy on your trap, nor smear them with blood, as it only serves to scare the game away as if they scented danger.

An abundance of repair links or a coil of copper wire should be kept on hand with which to mend broken chains.

Now a word about stretching-boards. A good supply of these should be kept on hand and not destroyed at the end of the season. They are as much a part of a trapper's outfit as good traps are, and should be as well cared for, as it requires time to make the necessary supply for a successful season's work.

There are many methods of stretching skins, such as boards, bows, hoops, etc., but my experience demonstrates that the best method is with boards, and for mink and all other skins which are "cased"—that is, taken off whole—I use the three-board stretcher, as shown in the illustration. To make it, prepare a board of some light material, such as pine or hawthorn, from twenty-four to thirty inches long, or longer if necessary; three and one-half inches wide, and about three eighths of an inch thick. Round off one end to the shape of the pointed end of a flatiron and chamfer, or round, the edges all around, except the end not rounded, then smooth nicely with a free use of sandpaper. Draw a mark through the center of it lengthwise, and saw, or split it in halves. Now smooth the inside edges until they are perfectly true and square. Make a wedge the same length and thickness, an inch wide at one end and tapering to three eighths of an inch, to be driven between the halves of the boards after the skin is drawn over and fastened. Some boards may need to be a half-inch narrower than this, as all skins, even though the same length, do not stretch to the same width without injury; and this should be avoided by having boards of various widths as well as lengths.

Another method of stretching skins that are "cased" is with a single board made the shape of the three-board stretcher, only it is not split in halves. Insert this in the skin and use a thin wedge as long as the board on each side. One side of this wedge should be flat, the other beveled from the center to each edge.

To skin and stretch a mink-hide so as to command the highest possible commercial value is an art equal to the successful trapping of the animal; in fact, it is the most important feature of the business, since many valuable skins are made worthless, or nearly so, by improper skinning, stretching and handling. As stated above, a mink-skin should be taken off whole, which is called "cased" when stretched. Commence with

the knife in the center of one hind foot, and slit up the inside of the leg, up to and around the vent, and down the other leg in a like manner. Cut around the vent, taking care not to cut the lumps or glands in which the musk is secreted, then strip the skin from the bone of the tail with the aid of a split stick or clothespin placed over the tail-bone just back of the skin and gripped firmly in the hand while the thumb of the other hand presses against the animal's back just above the root of the tail, and pull. Make no other slits in the skin, but skin out the legs and turn the skin back over the body, leaving the pelt side out and the fur side inward, and by cutting a few ligaments it will pull off readily. Care should be taken to cut around the eyes, ears, nose and lips closely, so as not to tear the skin and also to have a skin with a perfect head.

Have a board made about the size and shape of the three-board stretcher, only not split in halves. This board is to put the skin over while removing particles of fat and flesh which adhere to it while skinning, which can be done with a blunt-edged knife by scraping the skin from the tail up to the nose—the direction in which the hair-roots grow. Never scrape up the other way, or you will injure the fiber of the skin, and care should be taken not to scrape too hard, for if the skin fiber is injured its value is decreased.

Now, having been thoroughly "fleshed," as the above process is called, the skin is ready for stretching, which is done by inserting the two halves of the stretcher and drawing the skin over the boards to its fullest extent, with the back on one side and the belly on the other, the flesh side out and the fur side in, and tacking it fast by driving a small nail or tack an inch or so from each side of the tail near the edge of the skin, allowing some slack between each nail; also in a like manner on the other side. Now insert the wedge, and drive it between the halves almost its entire length; care should be taken, however, not to stretch the skin so much as to make the fur appear thin and thus injure its value. Now put a nail in the root of the tail, and fasten it to the wedge, also draw up all slack parts and fasten. Care should be taken to have both sides of the skin of equal length, which can be done by lapping the leg flippers over from each side and tacking fast. Now draw up the under lip and fasten, and pull the nose down until it meets the lip and tack fast, and the skin is ready to hang away to cure.

Do not dry skins at a fire or in the sun and smoke; it often burns or injures them so they will not dress and are of no value. Dry in well-covered shed or tent where there is a free circulation of air, and never use any preparation, such as salt and alum, as it only injures them for market. A very little salt can be pushed down into the tail, and with the point of your knife-blade stick the tip of the tail just enough to make a small opening to let it drain out the salt water.

You can sometimes judge a man's character by his wife's wardrobe.

A bird in the hand of the hunter is not worth two in the bush on the farm—not by a long shot.

Put your ideas into action at once, and then put them on paper, so others can put them into action with you.

Good Cheer

Now that the long winter evenings are here you can sit by the fire, read your FARM AND FIRESIDE more carefully, and enjoy that general good fellowship which the season's hard work prevented.

Look through the advertising pages of FARM AND FIRESIDE, and see how many goods are offered that would contribute to your comfort. And don't overlook the children. They saved you many a step this year and should have a reward. Often a book, a gun, a phonograph, or some simple amusement is all it takes to keep the boys and girls at home and happy.

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Our illustrated catalog gives a lot of information. Tells how to take off and care for hides; how we pay the freight both ways; about our marvelous brush dyeing process which is a tremendous advantage to the customer, especially on horse hides and calf skins; about the goods we sell, taxidermy, etc., but we never send out this valuable book except upon request. If you want a copy send in your correct address.

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Farm Notes

Farm Advertising for Results

RECENTLY it was my good fortune to spend a day with an expert on farm advertising, a man who has closely studied practical advertising and its relation to farm sales. Attended by remarkable success, he has practised the principles which he now advocates.

In discussing publicity on the farm, this authority divided the subject into (1) local advertising, (2) correspondence advertising, (3) periodical advertising and (4) show and sale advertising. He prefaced this classification by briefly touching upon the need of advertising by the young farmer in establishing a reputation and gaining a patronage. He said, "Many fail to get results from advertising because they do not take into consideration that the advertisement simply attracts attention and elicits inquiry from the prospective buyer, and that making the sale is a subsequent process for which the advertisement is seldom responsible. In general, the usefulness of ads. designed merely to make sales is limited and confined to a short period."

The Roadside Billboard

My host then reviewed the advantages of the roadside billboard, which may consist of an attractive board, fitted with a sash to protect notices from the weather, that furnishes a cheap and effective method for gaining the attention of those who pass the farm. On the board should be placed up-to-date notices of crops, seed, stock, etc., for sale.

Correspondence advertisements include post-cards, letter-heads, business cards, envelopes, circular letters and catalogues, all of which afford excellent means of locating and interesting prospective purchasers. Post-cards especially are inexpensive mediums of publicity, as are also letter-heads and envelopes, which may be illustrated with a good picture of the farm or some special animal of exceptional quality. The letter-head should be exclusive, preferably plain, not overdone by an excessive use of printers' ink and carrying only brief statements of facts which will interest prospective buyers.

Letter-Heads Indicate Standards

The letter-head is really the criterion by which your correspondents will judge you, so let it exhibit premier quality, indicative of superiority. The catalogue should correspond in excellence to the letter-head—it should show quality, accuracy and deal with facts, omitting superfluous statements and avoiding the use of superlative adjectives which always arouse doubt in the minds of good customers.

The general trend of the experts' remarks concerning periodical advertising favored ads. in thoroughly reputable and reliable agricultural papers. He advises the beginner in advertising with limited capital to use the small ad, frequently inserted, rather than a large ad. run only occasionally. The novice should also preferably use the classified ad., which is closely read by prospective purchasers and offers publicity at a minimum rate.

Use Reputable Periodicals

Regarding the selection of a periodical in which to advertise, he urges the beginner to carefully investigate the status of the publication, to ascertain whether the paper is read by the kind of people he desires to reach, whether it is read by a sufficient number to justify his advertising in it, whether its readers are financially able to appreciate and purchase his product and whether they are located near enough to the advertiser so that transportation charges, or differences in soil and climate, more particularly as regards seeds or plants, will not prevent or handicap negotiations.

For the breeder of live stock, fair and show exhibits present profitable opportunities for advertising. The publicity consequent to the winning of a blue ribbon is of inestimable importance to the breeder. My enthusiastic entertainer spoke in this wise, "The advertising value of exhibiting at shows and competing for prizes even when none of the best prizes are won has not been sufficiently emphasized. Very often the fourth or fifth prize animal will find a ready purchaser, while the first-prize animal may be held at such a price as to prohibit its sale. There are many buyers who are looking for animals and products which have quality, yet are not in the blue-ribbon class. There are many instances, which might be cited, to show where those who have competed for prizes in the big shows and won no place at all have yet received greater returns in advertising than the entire cost of entering the show. It is worth something to be in first-class company, even though you are not distinguished by a prize ribbon."

Essentials in Advertising

In concluding our interview, this successful exponent and advocate of farm advertising emphasized the necessity of improving

appearances on the home farm as the initial step in the advertising campaign. Buildings should be maintained in good condition, the trees trimmed, the lawns mowed, the fences painted and a general ship-shape tidiness should prevail. Endeavor to have your farm set the pace for your district as regards time of planting and harvesting, premier yields, best live stock raised, and the like.

Make an efficient use of the roadside billboard; provide inviting, attractive letter-heads; neat, interesting post-cards, and reliable catalogues; answer all inquiries immediately and comprehensively, and practice a system of "follow up" advertising. Ads. in periodicals simply attract customers, subsequent correspondence or visitation must make the sales. Finally keep everlastingly at it; keep your products continually before the public eye; raise a sufficient quantity of salable products to attract continuous sales; keep constantly before you one objective point, to raise a product of excellent quality and to realize from its sale a fair profit.

G. H. DACY.

A Unique Corn-Crib

NOT far from Sequim, Jefferson County, Washington, a farmer with an inventive mind has a most unique corn-crib. The country around Sequim was at one time covered with giant cedar and fir trees, which were cut down and floated to sawmills. There yet remain many of the stumps of these monsters of the forests. The stumps are about twelve feet high, being cut at that height by woodsmen because of the large amount of resin and pitch in the stump.

Now the country produces fine grain and once in a while a field of corn is grown by some farmer who has emigrated from the Middle States.

One man conceived the idea of utilizing a big cedar stump near his barn. The stump



stood thirteen feet high and was ten feet in diameter and hollow. The diameter inside this cedar stump was about seven feet. On the south side of the stump was a big hole, large enough to let a black bear pass through.

In the stump was placed a floor of wet clay which when dry was as hard as cement. The big hole was made over into a door with a scoop gate. As the corn was hauled in from the field the huskers threw it into the top of the stump, and when filled a board roof was made to keep out the rain. By placing four-foot sticks of cord-wood at intervals in with the corn, air space for ventilation was made.

This queer corn-crib holds about one thousand bushels of grain.

MRS. GAIL H. FICKLE.

A Cure for Grumbling

AN ENGLISH machinist now residing in Nebraska recently remarked in conversation with a FARM AND FIRESIDE reader:

"You fellows out here think you've got a hard time in dry years, but you ought to live in old England a while and see real living—then you'd appreciate the West. Talk about working for a dollar per and meals thrown in—over there it's eighty cents a day and furnish your own eating. I was a machinist and got ninety cents per and it looked big, too."

"You often hear of the English having five meals a day—yes, and they're mostly tea at that. Two of them are tea and bread or its equivalent. The other three won't equal one of your common nothing-on-the-table meals. On Sundays we did let ourselves out a bit and had a substantial meal, but not up to a Western hard-year visitor's repast. You say you haven't time for a garden or can't raise one—did you ever really try? I'm raising one—a little five-by-four-rod affair by the windmill. We've vegetables a-plenty and sell some at times."

"Back home—it's still home, though I've been here six years now—I worked ten hours a day and took care of a garden besides, not a big one, just forty-eight by twelve yards, growing simply cool-climate vegetables, such as onions, cabbage, lettuce, beans, potatoes, and the like. Tomatoes, cucumbers and melons were from the green-houses. Here you're free to use a garden-spot and don't have to manure it; there I gave three dollars for my garden-plot and about one dollar and fifty cents for the manure. The poor gardeners get carts for the young ones and send them out to help clean the streets, and many are the fights I've seen over a bit of manure. Horses have

their place, but more labor is done by hand than it is here, and saving—well, you people are spendthrifts beside them."

"And hogs—say, I'd like to see the folks out here take care of hogs the way the English do. You think just to dump in the corn, all they'll eat, and pour the trough full of slop is quite enough or even doing a little too much, but the folks who can afford a pigsty with a hog in it in England where I came from are somebodies, and the hogs are kept just like one of the family. The hog-house has two rooms—bed and dining room—and each one is slicked up every day."

"Feed? No corn; that was a novelty used sometimes in chicken-feeding. Vegetables were boiled and all mixed together by hand. Mr. Pig was supposed to live well, and he did, too, as we needed the lard—a big item in the daily bill of fare."

"Now you complain about going behind, so many dull times, nothing to sell and a thousand other excuses for poor management and doing things the wrong way. What do you suppose I saved in seven years over there, knowing we raised a thrifty family, had that job and raised the garden? We left with one hundred dollars. You grumble at hard dry years, but have you ever noticed those that go away from here very often come back? Why? Well, this is the only place I've ever heard of where people make a living on seven hours a day in the field and five days to the week. The thing to do is to raise more chickens, milk more cows, hope for the best and hang on. Then you'll win out."

C. BOLLES.

Corn-Cob Mulch

CORN-COBS make a splendid mulch for blackberries and raspberries. Strew the cobs plentifully about the plants and between the rows. They will choke out the weeds, keep the ground moist, fertilize the plants, and afford a good footing for getting about in the berry-patch. A light layer of cobs should be added every fall to take the place of those which have decayed during the previous season.

O. E. CROOKER.

The Farmer's Daily Diary

SOMEHOW, I have found it advisable for the past seven years to keep a daily diary. Maybe it is from the standpoint of curiosity, but if it is, I must be a curiosity myself. I must admit it takes a lot of time, but I feel like it was a necessity, otherwise I would not take the time to keep it going. The time worked by the farm-hands is kept at the top of the page in a conspicuous place. The special events of the day are put in large writing at the top of the page also, thus it is very little trouble to find any important event of the year. The daily diary has settled several disputes of the work-hands' time. By referring to its pages, I can quickly tell what was done on that day, or any other day for that matter. One incident I well remember was a year or two ago. The weather had been pretty and warm for some time, and our neighbors were beginning to plant corn. Father got "in a rush," but I assured him that it was too early yet, but he insisted, so I went and got five diaries, averaged up the time, and found we had eight or ten days. Others planted over and we did not, but we would have had to do so if we had not consulted our diary.

OMER R. ABRAHAM.

Learn About Bees

IT is an easy matter to give instructions for the successful management of bees and quite another thing for the amateur to carry out the instructions. I note that successful bee-men recommend starting in the bee business on a small scale, and this certainly is good advice.

A person who has never handled bees is sure to meet with problems in the bee business that require good judgment to solve. Such problems may have been explained in bee literature, but some judgment is required to apply the theoretical knowledge.

I remember once losing a good colony of bees from the depredations of the bee-moth. This might have been avoided if I had discovered the trouble in time, but the lack of experience with the bee-moth was responsible for my failure to discover worms in time to save the bees.

A. J. LEGG.

A Fire-Kindler

THE best fire-kindler I have ever used is a miner's lamp, or small torch, which costs fifteen cents, wherever they are sold. Filled with kerosene and the wick placed high, it will burn for two hours with a large, steady flame. It takes but a match to light it and burns but a small amount of oil even if left to burn entirely dry. Placed under a stove grate with its spout projected up to the fuel, it will light up coal in five minutes with only a small handful of kindlings. It saves time in lighting the fire, besides matches, oil and kindling. It is very useful as well in lighting fires out of doors, in brush-heaps, and the like, where it is generally so hard to get a fire started. A little care is needed, or else its own heat and the heat of the fast-generating fire will melt the solder from its joints and so make it worthless.

PAUL R. STRAIN.



Digging asphalt from Trinidad Lake for Genasco

Genasco

the Trinidad-Lake-Asphalt Roofing

What is the first and greatest thing to expect of a roof?

Stay waterproof.

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Trinidad Lake Asphalt

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The Woman's World is, without doubt, the best magazine ever printed for the money; in fact, is superior to many magazines selling for more than this. It is not only attractive in appearance, but its columns are full of the choicest literature that money can buy. The contents of the Woman's World are selected with a view of entertaining and educating its readers. It is a big value at a low price. Every farmer in the country should take this opportunity of obtaining the Woman's World without cost in connection with FARM AND FIRESIDE.

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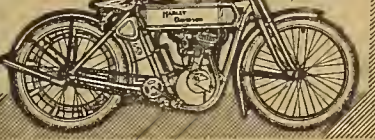
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Anybody can put on an Edwards Roof. Only hammer and nails required. Write today for our Big Free Catalog No. 1153. It tells you all about the Ten Thousand Dollar Guarantee Bond, which insures every Edwards "Reo" Steel Shingle Roof against destruction by lightning for all time. Special Cash Money-Making Proposition for one man who writes for it, in each community. Send dimensions of your buildings and we will quote you cost of an Edwards Roof, freight prepaid. (59) **THE EDWARDS MFG. CO.** 1108-1158 Lock Street Cincinnati, Ohio Largest Manufacturers of Steel Roofing Material in the World.

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Parcels Post



OW'S your muscle; good, eh? And your nerve; good, too?

How strong is one farmer, anyway; not so very, but hitch up all the farmers into one team, and hook the traces onto most any kind of a load, and it will move.

Sixteen years ago a "fool farmer" said we ought to have rural delivery of mail. The city man had his mail delivered at his door every

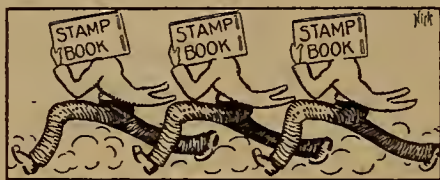
day: why not the farmer?

He kept pounding away at his idea. He seemed to have very little strength, but the first thing we knew his tribe had increased. Those who came to laugh remained to boost, until to-day we have a wonderful system of delivery which reaches millions of farm homes in every nook and corner of our land.

No picture of a farm is complete without that little white box on a post by the front gate.

Brother, would you like to go back to the time when we had to drive from two to ten miles to the post-office every Saturday to get the week's accumulation of mail, and then find, as we sometimes did, that letters from our friends, notifying us of sickness and death of loved ones, had lain in the office all week, and we, in our ignorance of the fact, had not been able to pay them the last sad rites of respect and reverence?

No matter what its cost, we must have the rural mail. We know it is cheaper to



have one man do the running to the office than for ninety-five or a hundred to do it. If necessary, the most of us farmers would be willing to cut down on our army or navy to have the rural mail, although, of course, we all know that our navy does us farmers a great deal of good (?).

When you run the mower, do you just cut a foot at the end of the cutter-bar, or do you cut a full swath?

Suppose your hired man would drive your team around and around the field, just cutting a foot at a time, what would you say to him when you found it out? I wonder.

Well, that is exactly what your hired men are doing. They are doing it to-day, they did it yesterday, and they will continue to do it until you tell them to stop and until you say it loud enough that they must hear.

The machine is making a lot of noise; in addition, a brass band is going along the road with a big poster which reads "Penny Postage for Letters." This helps to take his attention, and he doesn't hear you. It is up to you to make a noise he will hear, and you can do it.

No one farmer can stop this sort of thing, because back of the noise-machines and the dust-machines are the millions of dollars of the express companies, the millions of dollars of the wholesale mail-order houses; but if you and I get together, and all get into the game at once, we can stop it, and stop it quick.

What's the use for a man to drive around a field and cut off half a swath, what's the use for our mail-man to drive over his route every day, and haul half a load?

Ever have the experience of roads a foot deep and the package seven miles away at the express office? Wouldn't you have given a dollar gladly to save your team that drive?

Ever need a repair in harvest-time when days mean dollars, and you could 'phone to the dealer, but he couldn't send it out by the mail-man, "because he couldn't send it out by the mail-man"?

Do you want the parcels post? Why do you want it? Is your reason worth twenty-five cents to you?

Some of us look at the repairs item, some want to send eggs or truck to town to customers direct like they do in the more advanced countries of the world, Belgium



and Switzerland, some want it to get books from the state libraries; I care not what your reason for wanting it, if you would give a quarter to have it established.

A quarter is a big enough piece of money that any of us will know we have spent it, and will take an interest in the business, and that is what counts.

Here's the plan, endorsed by the editors of this paper and the editors of all the leading farm papers, who are every one with us and for us: let us each one buy a quarter's worth of stamps and write an even dozen letters, sending one every day that Congress is in session, beginning with the opening day of the next session, demanding of our representative that he give us an adequate parcels-post law.

We have the coöperation of editors representing considerably over a million farmers, and that is enough to do the work.



A million letters a day piling up on the desks of our friends at Washington will start things to moving.

Have you got a quarter? Will you spend it?

What you say in your letter doesn't much matter, just tell your congressman you want parcels post, and want it now, and be sure, whatever else you say or don't say, that you sign your name, and then after it write in good big letters so he won't make any mistake, "FARMER."

Let's n have some other class of citizens coming out after a year or so and claiming that he, she or it was responsible for giving the country parcels post.

You and I who get down into the dirt and do the work which makes it possible for the rest of us to eat are surely entitled to our share of the good things, we are certainly due to have everything which will make our lot less hard and unpleasant.

There is only one way we can ever secure the things which are ours by right; that is to get together and demand them.

An appeal like this is appearing in all the leading farm papers during this week. Brother, join with us, help to boost for parcels post, and help yourself at the same time. **ERNEST MERRILL RODEBAUGH.**

A Farmers' Beef Club

IN OUR district here in Missouri there has been successfully running for some time an organization called "The Farmers' Beef Club." We have been members for eight years. Occasionally a member will move away and make a vacancy, but there is always half a dozen ready to fill that place. Our company is composed of sixteen members, one of which is the butcher. We commence business about August 1st, and kill a yearling (heifer) every week. This brings our season (sixteen weeks) to a close about

December 1st, a time of year each one can do his own butchering to best advantage.

Each member of the company has to furnish a beef delivered at the butcher's place of killing and also has to go after his own share of the meat after the killing.

After butchering, each carcass is weighed and the partner furnishing it given credit with that number of pounds of meat. The butcher then divides the meat into sixteen equal parts by weight and to each member a part of the various cuts as near as possible. Each partner is charged with his share of the meat, and if he does not come and take it away, it is his individual loss. At the end of the season a settlement is made by figuring the dressed meat at a fair average price for the season, and those that have received more than they furnished have to pay the difference. If the beeves are furnished this year in the order of the alphabet (A, B and C) up to the sixteenth man, or P, then next year the order is reversed, and we commence with P, the sixteenth man, and run backward. The butcher, for his pay, gets the hide and offal. Every farming community might well be organized into a beef club.

There might be one in every school district. Its benefits are that it furnishes its patrons with fresh meat through the heated part of the season; it also furnishes the best meat at a reasonable price. Lately we have figured our dressed meat at five and one-half cents. If beef clubs were the rule instead of the exception, it would make an improvement in the cattle-market in the farmers' favor. **A. S. WATSON.**

Windmill or Wind-Turbine

A READER of FARM AND FIRESIDE in a windy section of Kansas wishes to know whether a very large wind-turbine, controlled by vane and installed on the top of a hill, would not be a good and cheap means of power. He proposes to store up the energy in the form of compressed air.

This western farmer is right in his idea that the force of the wind is a very economical source of power, but it is not an easy matter to build a turbine that will convert this force into driving-power. The man who developed the shape of blades on modern steel windmills performed something over two thousand different experiments before he determined the most efficient shape of blade. The result of these laborious and expensive experiments was to very much increase the power of the steel windmill from the old-fashioned wooden wheel. However, the windmill is a very inefficient source of power, as it is necessary to use a very large wheel, say fifteen or twenty feet, or even more in diameter, in order to get any considerable amount of power. The average farmer is not a good mechanic, he does not understand the principles involved in the design of an efficient windmill and my experience has been that he is more apt to spend more money and energy trying to develop a machine of this kind than he would spend in buying an efficient, well-made steel wheel from an honest manufacturer. I believe it is wiser for a farmer to keep on with his farming, get the greatest profits that he can out of his crops and then use these profits for buying machinery from a man who is in the business, always being very careful in doing his buying to see to it that he gets a first-class article for his money and that he does not pay an excessive price. There are many honest manufacturers of windmills who turn out good goods. One can protect himself by getting prices from a number of different manufacturers before buying. **HOWARD W. RILEY.**

Liberty for the Boys

SOMETIMES when the farm is handed over to the boys "the old man" becomes a silent partner, sharing in all but the work; at other times he becomes a useless fossil, ignored all around, to his bitterness of heart. I have seen old men whom the infirmities of age had made childish, or a little mentally weak, shifted to poor-house or asylum, to eat out their hearts in vain longings for home or the useful life of freedom and independence they once led, seldom visited by the cold-hearted children, dying at last of sheer hopelessness before their time. Often the farm is deeded over to the sons, who by reckless management or excesses cause the farm to be sold, with all its life-long associations, and the old man is driven to live in town, or far away "from the loved situation," whose every spot holds some memory of brighter vanished days. He wanders up and down disconsolately over the hot, noisy streets, "And the pavement stones resound, as he totters o'er the ground, with his cane." The eager questions of the town-living old men in the spring about springing flowers, growing crops, etc., shows where their hearts lie; and it is not in the sordid hurry of the city! Far better for the old man if he can sit in a chair at evening in happy content, and watch the men stacking fragrant hay, the cows coming up to be milked, hear the birds singing and the hens clucking all about him, with the dog lying at his feet, and the cat upon his knee, while the air is laden—not with the odor of dirty streets and stale cabbage and choked sewers, but with the hum of bees and the varied scents of forest and field. **CLIFFORD E. DAVIS.**

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What Heat for your House?

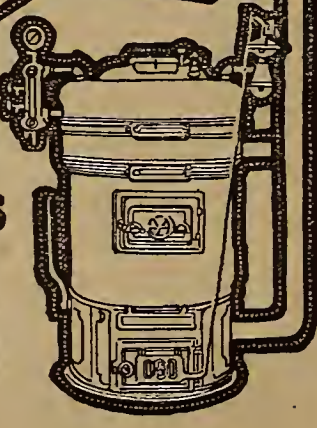
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The FARMERS' LOBBY.

IF A man should come along and tell you that the United States produced more weather per acre than any other country, you'd just laugh. That was what I did, when a man explained to me to-day that this was the meteorological headquarters of the world. The man was a government scientist, and looked disgusted. Anybody ought to know how it happened, he said, that we were the boss weatherarium of all creation, the central office and main distributing agency for the really, honestly, actually biggest business there is.

"You see," said the high-browed party who was telling about it and was grieved that his disquisition should be regarded as humorous, "folks mostly know less about things in proportion as they talk more about them. The weather is the fine illustration. Almost nobody knows anything worth while about weather, and yet it's a subject on which science is putting a lot of dots these times. But what do people talk so much about? They greet you in the morning with 'good-morning,' when it probably isn't a good morning at all; they talk about the weather all day, and wind up at evening with 'good-night,' whether it is or not.

"They never bother to find out what is known about weather, but almost everybody insists on believing a lot of stuff that isn't true, and that everybody ought to know isn't. They watch the new moon with prodigious concern to know whether an Indian could hang his powder-horn on it. Half of them claim that if he could, it's going to be a dry month; the other half is just as certain that the rule works the other way, and that the powder-horn hanger moon is a wet one; and each crowd will explain that it's right, because it never saw the sign fail! No, not even once!

"All these old weather superstitions of the moon and the hickory-nut shucks and the corn-husks, however, are more reasonable than the firm confidence that millions of people have in weather predictions at long range by almanac fakirs who assume to forecast the year's weather in time to give you a complete twelve-month schedule in advance. One of these solemn frauds can keep at it for forty years, handing out his nonsense, and getting more and more people to taking him seriously. If he gets one guess approximately right every month—and he would be a wonder if he managed not to do that much—then he's established as a prophet.

The Nonsense of It

BUT let the Weather Bureau slip up three days in that same month on its twenty-four-hours-in-advance forecast, based on actual knowledge of the whole world's general atmospheric and meteorologic conditions, and they'll be out holding conventions, denouncing the service and demanding that it be abolished. Now, isn't that funny, when you come to think of it?"

It did seem a bit that way.

"The Weather Bureau experience tables show that it goes wrong just about one day in ten. That's the fact, not the dope. We hear a fine ascending and crescendo roar about each tenth day; but who ever mentions approvingly the other nine, when the forecast makes good?"

Sure enough, who does?

"But," proceeded the luminary, "these eccentricities of an unappreciative and ungrateful public could be overlooked, if folks wouldn't get the notion that the Weather Bureau makes the weather. Yes, they do. Of course, they know better, if they'd only think; but they don't think; they just think they think. The joke about a weather bureau that 'couldn't make better weather than this' is passed along in all its varied forms, till it sinks into the spongy consciousness of people, and they get to forgetting that it was intended merely to be a joke. The feeling that somehow the weather bureau that predicts the weather has something to do with causing it is perfectly natural, and it is really responsible for most of the fault-finding about the weather service."

That sounded rather foolish, but next day it rained. The forecast had predicted the rain. There was a game scheduled for the world's championship series that day, and, meeting some friends who had intended to go, I was edified to hear them turn loose an eight-cylinder grouch against the weather-forecaster; not because he had guessed it right, but because he "might have done a blamed sight better!" That line of talk was facetious thirty or forty years ago; but those fans were dead

Uncle Sam's Weather

By Judson Welliver

earnest about it. They were sincerely disgusted with the weather man. They didn't know any better.

My scientific friend told me how it happens that Americans are always growling about "did you ever see such a climate? Always something different; can't tell what's going to be passed out." Well, he says we talk that way because we actually do have that sort of a climate. It is more varied and changeable than any other; and the now accepted scientific explanation of it relates to the topography of this North American continent. Here is the way he told it, reducing his polysyllabic and mystifying language to the lowest common denominator:

North America a Theater

NORTH AMERICA is the meteorological theater of the northern hemisphere. You understand that there is no relation between the two hemispheres, as to weather; they are as independent as if they belonged to different planets. But in either hemisphere the weather scheme is a great, related whole. A man who could have before him every morning complete reports of weather conditions all over this northern hemisphere could make forecasts that would be a wonder.

"Now, those changes in atmospheric conditions that make variations in weather are caused by clashes

FARM AND FIRESIDE is now a bi-weekly. From now on you will receive 26 numbers instead of 24, in a year. The cost to you will be no more. There is nothing too good for our readers. **FARM AND FIRESIDE** is growing bigger and better all the time. You appreciate what we are doing—hundreds of letters every week say so. Here is how you can show your appreciation in a practical way. Read this number, show it to two friends, secure a year's subscription from each at the special club price of thirty-five cents, forward us seventy cents, and we will send the paper to each of them one year and will extend your own subscription another year. This will make them feel mighty good, and it will also help us on toward the million mark.

between different currents of air; generally speaking, between the cold currents that flow generally from the northwest and the warm currents, or bodies of air, from the more southerly regions. The fullest, freest opportunity for the northern cold air and the southern warm air to mix up in big bulks is the best guaranty of lively weather conditions.

"The business of forecasting weather is more difficult and uncertain here than in other countries. True, our weather service does the best work of its kind in the world; but that is because it has the largest area of observation, the best meteorological scientists and the most experience."

Weather from Everywhere

WEATHER reports come to the United States service from all over the northern hemisphere. Arrangements with the governments of Russia, Japan, Britain, Germany, the Mediterranean countries, Mexico, Canada, etc., make it possible to gather in by cable, wire and wireless daily data from Irkutsk and Vladivostok. Shanghai and Seattle, Berlin and Bangkok, St. Petersburg and St. Paul, Guam and Cuba, the Philippines and the Azores, Iceland and Hawaii, all send in their observations. Medicine Hat nods cheerfully to Santiago as their figures are marshaled into place on the huge Mercator chart of the north half of the world that places the daily weather story under the skilled eye of the chief forecaster at Washington.

Altogether, it's one of the finest organizations in the world, this which the United States has organized in coöperation with, and for the benefit of, all the world. Of its commercial value there can be no doubt. It is not at all perfect; indeed, of late it has been subjected to a vast deal of criticism, some of it more or less

justified, more of it entirely without reason. But whatever its imperfections, the fruit-growers of California and Colorado; the ship-owners of both coasts, the Gulf and the Lakes; the orange-raisers of Florida; the wheat-growers of the middle valley—all of them have learned how much of saving they can effect by taking the advice of old Probs. Just let the proposition be seriously advanced, of doing away with the weather-forecasting service, and there would be a yowl like unto that which the community exuded from its system when it got wise to the strangle hold that the plotters had on Doc Wiley.

None the less, the enemies of the weather service are more active than ever before, and they are carrying on a persistent campaign, directed especially against Willis L. Moore, chief of the service. Professor Moore has been head of the bureau for sixteen years; the service itself is about forty years old, and was first managed by the War Department, and transferred some twenty years ago to the Department of Agriculture.

Professor Moore was first bitterly attacked about ten years ago by a New York newspaper, whose attacks have recently been reprinted and widely circulated by his enemies. The facts in the case are in brief that this newspaper conducted a weather-forecasting business of its own. It maintained an agent at the Weather Bureau office in Washington, who was permitted to copy all the data telegrams as they came in and forward them to his home office. These enabled the newspaper's private forecaster to make his own forecast, and beat the government to it by several hours.

So long as this arrangement continued, all was fine weather. But some other metropolitan newspapers discovered that weather was news, and also asked the same privilege of advance information. It became apparent that all must be treated alike; it was utterly impossible to let a lot of them do what a single one had been permitted to do, because the place would be all cluttered up with scurrying reporters copying cipher messages; there would be an amateur forecaster working in every big newspaper office, forecasts wouldn't agree, and the service would lose everybody's confidence.

Why Not be Fair?

SO PROFESSOR MOORE issued orders that all must be treated alike and that the one paper which had been enjoying special privileges must lose them.

Thereupon that newspaper went on the trail of Moore, and it has been there, at intervals, ever since.

A congressional committee, headed by Mr. Littlefield of Maine, made a big sensational investigation of all these charges five years ago, and six of the seven committeemen—Republicans and Democrats alike—signed a report completely exonerating Moore and commending his work. The seventh was Mr. Littlefield himself, who made a minority report excoriating Moore. The majority report was accepted by Congress, Roosevelt, Secretary Wilson and all the authorities, and Moore stuck to his job.

The weather service costs the government about \$1,500,000 a year. Considering the vast expense for telegraph service, salaries, equipment, etc., that does not seem a large or extravagant sum. Whether there has been, as charged, a deterioration from former standards of scientific accuracy in the actual forecasting work, I cannot say further than to mention that the bureau's own experience sheets indicate that the predictions grow more accurate year by year.

This is attributed to larger experience and a wider field of observational data.

There is one thing that is certain. Whether the Moore management shall be vindicated or not, folks are going to make an egregious bull if they get the idea that the weather service isn't worth the money.

The weather service is not perfect. It ought to be better, and is apparently getting better. But it would be just as sensible to talk about abolishing the Bureau of Chemistry because it developed a nasty cabal against Wiley, or to consider discontinuing the whole Department of Agriculture because there was a scandal over the leakage of crop statistics, as to think of decapitating the whole weather service because of some dubious details in its management, or because it went wrong on the weather last inauguration day.

The Road to Happiness

A Story of the Common Lot

By Adelaide Stedman

Author of "Poor Relations," "Miracle," "Intellectual Miss Clarendon," Etc.

Chapter I.

NORMAN NORRIS and Jacob Jordan regarded each other across the gorgeous width of the Taylor library.

"A fifteen-minute wait is always a sad wrench to my self-esteem," Mr. Jordan remarked. "I'm inclined to think that Miss Frances wishes us any place but here." His manner was so composed that it was evident that no real doubts annoyed him.

"I dare say an invitation implies a welcome," Mr. Norris retorted dryly.

Jacob Jordan laughed, seemingly unconscious of the other's bluntness.

"My dear Norris, why do you persist in regarding us as we should be instead of as we are? I'd be in a continuous slough of despond if I expected any young girl to mean in the evening what she said in the morning."

He took out his watch and consulted it languidly. "Half-past eight. My time ought to be limited. I'm due at the reception to Judge Lowell at the Lawyers' Club at ten-thirty. I don't believe I'll make it." Suddenly a pleasant thought, which evidently relieved him, lit his eyes. "You will be going too, won't you?" he ended.

"Yes. All of the members are expected to attend." The lawyer raised his eyes and looked at Jordan, evidently reading his mind. Their glances met and clashed.

Both understood that they were rivals and that the battle was on between them; but they merely went on talking disconnectedly of trivial things.

Meanwhile, up-stairs in Frances's dainty blue boudoir, she and her mother were watching the maid put the finishing touches to her toilette.

"All right, Marie," the girl exclaimed presently. "I won't need you again this evening. I can unfasten this dress myself."

Mrs. Taylor watched the maid out of the room. "You're entirely too lenient. You'll spoil her," she remarked.

"Well, I like to be spoiled myself," Frances replied, smiling.

"Hurry," her mother exclaimed, as the girl rose slowly. "Mr. Jordan is not a man to be kept waiting long."

"Or Mr. Norris, either," her daughter answered wickedly, fully aware of her mother's preference for the former.

"You are a lucky girl to have two such admirers during your first season," Mrs. Taylor declared solemnly.

Frances smiled at herself in the long cheval-mirror. For some reason she could not even explain to herself, she never discussed "tender topics" with her mother.

"Isn't it unfortunate that they both should call the same evening?" the older woman went on.

The smile on the pretty face looking into the mirror broadened. "I asked them to," she answered serenely.

Her mother started, but dared make no retort. She, in her worldly wisdom, knew that, to men, Frances's greatest charm was her gay artlessness, and she feared to spoil it.

"You go down a while," the girl suggested. "I'll follow presently, when I've pinned on some flowers."

Again her mother hesitated, desiring to speak, but she contented herself with a brief "Very well," and left the room.

Once alone, Frances carefully dried the stems of two sprays of flowers which stood in a silver vase on her dressing-table. Happily, she glanced from one to the other—exquisite orchids from Jacob Jordan; soft pink roses, small but deliciously fragrant, from Mr. Norris—her usually laughing brown eyes very sweet. It was a beautiful thing to be loved, and she knew instinctively that she had awakened that sentiment in the two men waiting below. Utterly oblivious of time, she stared at herself in the clear glass, indulging in a girlish day-dream, wondering if the delightful excitement she felt was "falling in love," absolutely unconscious that the very fact that she had the coquettish desire to have both men together and to watch their jealous tactics argued that she was still quite "fancy free," whatever she thought to the contrary.

Slowly she tried each bouquet against the pale blue of her gown, not sentimentally, but carefully considering which became her best. Finally the pink roses nestled securely at her waist, and she hurried down-stairs, very gay, full of the joy of living, devoutly thanking kind Mother Nature who had given her curly brown hair, a fresh red mouth set with dimples and a skin as creamy white as the petals of a calla lily.

With her entrance into the library the atmosphere became strained. Mrs. Taylor adroitly slipped into a chair beside Norman's, leaving his rival free to talk to Frances, and Jacob Jordan was not the man to neglect such an opportunity. Very soon he and Frances were chatting animatedly, while Norman sought for answers to Mrs. Taylor's babble while he tried vainly to decide whether he should be encouraged because Frances had worn his flowers, or dejected by the fact that she was

all too evidently interested in Mr. Jordan's conversation. However, the object of his envy was not satisfied, either. The things he wished to say to Frances could not be said in company. Therefore, when ten o'clock struck, he rose with no special reluctance.

"I'm sorry, Miss Frances," he apologized, "but I have to go and give honor where honor is due." Judge Lowell's reception, you know." His words were for the girl, but his eyes were on Mr. Norris, holding a mute question.

Norman looked at Frances regretfully, preparatory to rising, also. He had not had a dozen words with her, and suddenly as he looked, a trifle embarrassed by his gaze, she obeyed one of those impulses, which have no motive, but lead to incalculable results. She bent her face over the pink roses, and held it so for a long minute. To a lover, that was a signal, a wonderful bid to hope, and palpitantly obeying its summons Norman said with forced calmness: "I don't think I'll go after all, Jordan. I'll never be missed in such a crush, and I detest functions."

The words were simple, but their effect was electric. Jacob Jordan glanced rapidly from one to another, noting Frances's flush, Norman's smile and Mrs. Taylor's compressed lips. In her expression he found reassurance. She was evidently his ally, and, realizing this, as he left there was a piquing lack of uneasiness in his

mind, now she heard herself murmuring, with his impetuous words still ringing in her ears, "You had better ask Mother."

Norman was in desperate earnest. "Do you mean that I may hope?" he questioned, catching her hands.

Her only answer was an excited, happy little laugh, then she was caught in his arms, and he was looking down at her small brown head, almost prayerfully happy, while she regarded him with eyes aglow with excitement. She had not intended to act so, but now she was strangely glad.

"Darling," he murmured, "I can't tell you what I'd like to say in words. I—I love you so!"

"Are we—are we engaged?" she whispered with bated breath, her face alight with what seemed love.

"If you care?"

"I'm very happy. Is that caring?"

Suddenly the man released her tenderly, while the tears stood in his eyes. "You child! Are you sure that your father will consent?"

The girl laughed softly, and with a little sigh of content allowed him to put his arms about her again.

"I'm going to begin telling you family secrets already. Father does what Mother wants him to—and Mother can be managed! So you're quite safe!"

The man's face sobered a little at this naïve avowal, but broke into a smile again, as she ended with a hushed little laugh. "Aren't we wicked?"

"Not unless happiness is wrong," he answered. "I didn't think a girl as sweet and unworldly as you existed in this sordid town. I hardly dared to hope for what has happened."

"Mr. Jordan was foolish to go away, wasn't he?" she questioned.

"And I was supremely sensible to stay."

"I liked your staying—the way you did," she confessed. "It showed that I was more important than an old reception!" With the words her face transfigured with a sudden happy thought. "Oh, just think of the wonderful one Mother will give to announce our engagement! Won't it be fun?"

"You know I detest formal affairs."

"Gracious, you'll suffer for the next few months! There'll be just shoals of them!" She laughed delightedly as he groaned. "There'll be presents—and a trousseau—and our pictures in the papers—we'll have to run away from the reporters! Oh, I do think that being engaged is going to be lovely. Really, Mr. Norris—"

"Mr. Norris?" he stopped her. "Why, Frances!"

Shyly she smiled at him. "I—I'll have to get accustomed to calling you—by your first name. We're not very well acquainted, are we—Norman?" The delicate roguishness of her manner was indescribable.

With such talk the first blissful hour passed, then, as Mrs. Taylor still did not return, Norman reluctantly remembered the proprieties.

"I must go, dear," he said.

"I love to hear that sorry note in your voice because you're going to leave me," Frances confessed. "Every girl I know will be jealous of me. I'm the first one to get engaged this season—and to such an important man, too!"

Norman laughed. "Well, as soon as your father and I have arranged affairs, you can announce the great news that I've won the sweetest little girl in all New York."

He was holding her hand and looking down at the small white fingers. "Shall the pledge-ring be a solitaire, dearest?"

"Oh, yes, a twinkling, winking one! I'll wear it the very next time Mr. Jordan comes to call!"

Norman regarded her speculatively. "Why do you speak especially of Jacob Jordan?" he inquired.

"I hope you're not stupid," she retorted gaily, "but you surely are, if you don't know that! Silly old dear, he wanted to buy me an engagement-ring, too!"

She spoke with the joyous triumph of a child, and led him into the hall. There the real good-bys were spoken, then Norman left, under the spell of his happiness.

Born and bred on a farm, he had grown up simply. The homely virtues and the rigid morals of the country were his. To him, marriage was the great crisis of life, to be approached reverently and tenderly; to be endured for better or for worse all one's life.

Happily he pictured Frances receiving her mother's embraces and loving counsels, then dreaming awake far into the night perhaps, as he intended doing.

He walked down-town to his hotel. Space was nothing. No mere car or taxi could contain his transcendent happiness. With a great and everlasting love kindling in his heart, he needed to see the moon and stars in the great blue vault of the sky; he needed to see the eternal beauties of the night, God's beauties, and to forget the little things men make and destroy.

In the Taylor home, a tired woman called her daughter to her as soon as she bounded up the stairs. Running into her mother's room, the girl halted at the sight of her pale face and red-rimmed eyes.



"She had not heard one word. In a flash all of Norman's ardor died out"

manner, which made Frances wonder a little if she could have mistaken his sentiments in regard to herself.

Mrs. Taylor preferred the aristocratic Mr. Jordan, with his inherited wealth and his polished manner, to Norman, just ten years from a farm, who was only then succeeding in making an enviable place for himself as a lawyer; and she did not disappoint the former's expectations. For fifteen minutes after his departure she kept the conversation general, and would have continued doing so for the rest of the evening, if friendly chance had not intervened, taking the form of a sudden telephone call from Mr. Taylor, which made her leave the room rather precipitately, her daughter thought.

"Poor Daddy has stayed at his office every night this week," she told Norman. "I'm glad I'm not a man!" then suddenly she found it difficult to continue, for in his eyes was an adoring look, a look which spoke louder than the longest love speech. She felt her cheeks mantling in betrayal of her self-consciousness.

"You wore my flowers," he whispered. The girl started. "Don't be afraid," he went on hastily. "Just let me tell you that you have made me very happy. Any little mark of your favor gives me fresh courage. I—I won't take too much for granted. All I want to know is if I may ask your father for permission to try and, perhaps, with his favor and yours, win you?"

Five minutes before the girl had not known her own

"Why, what in the world is the matter, Mother?" she exclaimed in alarm.

"Nothing. Just a sudden headache," "I think I have a cure for it!" the girl caroled, a little uncertain, but altogether joyous. "Oh, Mother, I hope you'll like my news! I'm engaged to Norman Norris!"

As if the words were really a remedy, to Frances's intense amazement, a great wave of relief swept over her mother's face.

"Thank heaven!" she exclaimed devoutly.

Chapter II.

Two weeks from the momentous night of her engagement, Frances had her big engagement dinner. She and Norman had lived in a whirl of excitement ever since the announcement of her betrothal had appeared. Norman had meekly submitted to the deluge of entertaining, because he knew that his little fiancée reveled in every function, and he hated to interfere with her unalloyed happiness. It annoyed him that he was so restless and disturbed at the situation. Frances was gay and loving. What more could he ask? What more did he want? Nothing, he told himself repeatedly, but nevertheless the feeling of vague unrest remained.

At half-past six on the evening of the dinner Mrs. Taylor swept into her drawing-room looking angry and upset.

"Jenkins," she exclaimed to the butler, who was passing through the room with a big box evidently containing an engagement present; "I can't understand why the flowers for the table haven't come. Telephone the florist immediately."

"He was here, ma'am," the man answered imperturbably, "and, asking your pardon, ma'am, he said he couldn't bring the decorations until the back bills were paid."

Mrs. Taylor started, but managed to say haughtily, "Such insolence! I hope you obeyed my orders about tradespeople and sent him to Mr. Taylor."

"Yes, ma'am, I did—and he just sent word that the flowers will be here, but—"

Suddenly Frances's voice sounded from the hallway. "Oh, Mother is in the drawing-room. Thank you, Marie."

"That will do, Jenkins," Mrs. Taylor murmured hastily, just as her daughter entered the room. "Why are you so late?" she demanded, but not sharply, for the girl's blooming face mollified her.

"That wretched dressmaker kept me standing and standing, and then I waited for samples of all my gowns for my wedding book." She took a small package from her muff and patted it appreciatively. "Well, hurry now," her mother commanded, "or people will be arriving before you are dressed."

"Oh, I just love this rush!" her daughter exclaimed, the pink in her cheeks deepening, and her eyes shining. "There is no use in pretending, I do love to be petted and entertained, and to see my picture in the papers with accounts of how pretty and young I am!"

"That's only natural; but you must hurry now, Frances! Norman will be coming—"

"Norman is here," exclaimed that gentleman from the doorway. "Good-evening, Mrs. Taylor. Well, Frances dear!"

The girl ran toward him. His impetuous loverlike greetings always delighted her; but she only tarried in his embrace an instant, then released herself hastily. "I must run away now and make myself presentable," she explained.

The man frowned. His moments with her never seemed to lengthen. "Can't we have at least five peaceful minutes?" he questioned.

Frances looked at him solemnly. "Do you think that I would feel peaceful when I know that I'm a sight?" With a charmingly caressing gesture, she put her hand to his forehead and tried to smooth out the protesting wrinkles as she went on. "I should think you'd like me to look my best. You want people to think that being in love agrees with me, don't you?"

"I suppose everything and everybody comes before I do," Norman sighed, but with the impatience gone from his voice.

The girl laughed triumphantly.

"Yes—until we're married." She ran to the door, then paused there to give him a provoking, coquettish look and to continue, "After that, when you want me to do anything, I'll say, 'Yes, Norman dear—maybe!'" Her gay, ringing laugh rang out and she disappeared.

Mrs. Taylor and her future son-in-law turned to each other smiling; Norman in fond perplexity, the mother in fond admiration.

"The dear child has never had a care or a responsibility in her life," she exulted. "Not a shadow has ever touched her girlish brightness."

"She is very light-hearted. Sometimes I almost wonder—" His words were cut short by the reappearance of the butler, who came to announce the earliest guests.

Mechanically greeting others and being greeted, he watched the gradually forming groups: gorgeous women with hard faces and hard laughs; with smooth, cold voices, or gushing hypocritical tones; and men in

whose eyes lay habitual calculation; by whom everything was reckoned at cost.

When Frances rejoined her mother in an incredibly short time, and joined instantly in the gay talk going on about her, it struck him for the first time with unpleasant force that these people were Frances's associates. Abruptly he turned to Mrs. Taylor with sudden speculation in his eyes. She was the type of woman about whom everybody says, "Have you a young lady daughter?" Now, Norman noted her brown hair so like Frances's and still untouched by gray, the youthful lines of her figure, her beautiful face only marred by the harsh lines of the mouth and the glitter which had replaced the sparkle in her eyes. Then, moving closer, he heard a young woman saying to her:

"You shouldn't have been so gracious to the gentlemen who called, if you didn't want Frances to be gobbled up!"

Then came her answer, smooth and serene, spoken in a tone of indescribably cutting sweetness:

"I trust I accepted the inevitable with good grace. Honey will draw the bees!"

The man turned away in disgust. Mrs. Taylor undeniably belonged just where she was, and suddenly the question came to him of how such a woman would train her daughter to regard the serious things of life, but quickly remembered Frances's artless sweetness and put all doubts out of his head as disloyal.

Presently he was captured by one of the women and led into the library to inspect Frances's gifts. In a few moments the whole company joined them, except one young girl, who lingered pensively sniffing the fragrance of a bunch of pink roses. Norman kept the house supplied with these blooms, saying they were his lucky flowers.

In a moment Frances appeared, looking as lovely as a Watteau picture in her white satin gown, with its soft drapings and a bunch of the same pink roses pinned amid the laces.

"Amy dear, I saw you," she explained, "and came to ask why you stay here so 'lone and lorn'?"

"I—I just stopped to admire these flowers," she answered with evident embarrassment. "What beauties you have on, Frances!" Her pale face with its soft gray eyes looked very wistful, and a faint sigh escaped her lips. "All of the girls are wearing bouquets."

Frances understood her feelings perfectly. Timid Amy did not care for the flowers, but for the tribute they implied. It was hard to be without admirers.

"Oh, did you forget yours?" she questioned sympathetically. "What a shame! Take these. They will harmonize beautifully with your green gown."

Hastily she dried the stems of the roses with her handkerchief, twisted a bit of her tin-foil about them and managed to extract one of her pins. "There," she cried, holding out the bouquet with a winning smile.

Amy accepted it with a delighted flush and was just pouring out her thanks when Norman entered the room.

"I thought I heard a familiar voice!" he remarked contentedly.

With unexpected tact Amy very soon left them alone.

"Have I really got you to myself for a minute?" Norman marveled with a laugh of satisfaction. "It was sweet of you to give those flowers to that silly Miss Prendergast. I happened to be at the door and shamelessly listened. I love to see you do little kindnesses, because it shows me that beneath your gaiety you are—"

"Blarney! Blarney!" Frances broke in. "Amy is such a poor, silly little thing she needs somebody to help her. The other girls all have sense enough to buy flowers if no one sends them any."

Norman smiled and drew her to a couch, his manner very tender.

"I have something more interesting to talk about than Amy. I have had a present for you for two days now, but this is the first opportunity that I found to give it to you."

Slowly he took a white velvet box from his pocket and handed it to her.

Frances looked at it with dancing eyes, gently stroking its smooth surface.

"Oh, I just love these darling boxes! It's some more jewelry, isn't it?"

"Open it and see!" Norman's voice was vibrantly happy.

"I almost hate to, because then the surprise will be over, and I just love the first delicious thrill!"

"Frances, you're nothing but a child. Go ahead! Open it."

Slowly she pressed the spring, then jumped up with an excited cry of delight, dropping the box and holding out a string of pearls, pink-tinted, lustrous, exquisite. In an instant her arms were about his neck and she was kissing him rapturously between murmurs. "Oh, you darling, you darling! If there was one thing in the world I wanted, it was a string of pearls!" —with a fresh gurgle of delight—"such a string of pearls!"

Norman's heart leaped at her naïve delight. What a privilege it was to make her so happy, his dear, unspoiled little Frances! A thousand loving thoughts

surged through his mind, but all he said was, "Then you are pleased with it?"

"I'm just wild about it!" She held out the gleaming chain, nestling close beside him and kissing him again. "Thank goodness, you have such good taste, Norman. I'd have wept if you had spent an enormous lot of money for something ugly."

The sight of the glistening tear-drops still on her cheeks and the sound of her blissful voice forced some of the throbbing emotion he felt into words.

"Frances dear, I couldn't fail to have good taste in picking out something for you," he said ardently, watching her face bent over the pearls. "I'm not a man to make loverlike speeches, but I think you know that you've been all in all to me since the day I met you. That's only two months ago, but it seems a lifetime!"

Suddenly Frances looked up, exclaiming delightedly. "There are seventy-nine pearls in it. I knew there were over fifty!" She had not heard one word.

In a flash all of Norman's ardor died out under the cold shock of her words. He felt almost sick with the sharp recoil of emotion.

Something in his lowering face made Frances question hastily, with a vague feeling of guiltiness, "What's that you were saying, dear?"

Norman looked down into the brown depths of her eyes, but they gave him no satisfaction. "Nothing," he answered grimly.

She was convinced now that she had done something amiss and was just about to question him, when she saw Jacob Jordan approaching from the library.

Norman and Frances had no more time for private conversations, for hardly had Mr. Jordan vanished before Carolina Sanford joined them.

A tall, gracious woman, in her late thirties, she was unmarried, but seemed to have made the whole world her family. The girl had known and loved her ever since she could remember, while to Norman she had proved a fairy godmother.

Her old attorney, in whose office Norman had worked, having died, she had become his first client, when he started as an independent lawyer. Later she had made herself his friend, and it was at her house that he had first met Frances.

Now both greeted her enthusiastically, as she had been away for a month, and this was their first meeting since the engagement. Norman's ill humor melted away under the influence of her gentle words, while Frances regarded her with adoring admiration.

"And how is the bonny little bride-to-be?" Carolina questioned fondly.

"Spoiled nicely, thank you," Frances laughed. "I never knew what an important person I was until I became engaged. Everyone is giving me perfectly wonderful presents! Just look at these pearls from Norman! Aren't they magnificent?"

Carolina admired them heartily, then something in the eager, animated face above them made her say:

"Enjoy your pretty gifts, dear, but remember that you will obtain happiness, not by having lovely things, but by being lovely; not by getting, but by giving." Suddenly she bent and kissed the smooth, rounded cheek so close to hers, as she ended with a sigh which no one heard: "It took a great deal of suffering to teach me that, but I know it now."

"You are an angel," Frances exclaimed impulsively, "and I am a little wretch." She presently excused herself to rejoin her other guests.

"Dear Frances!" Miss Sanford smiled, watching the girl as she walked away. "Love will give her the needed ballast. I expect to feel real satisfaction in your marriage, Norman. I can just imagine what a useful, happy life you are planning together."

"Well, the trouble is," he hesitated, a sudden light dawning on his face, "we've not had much time—"

"Making the confidential half-hours more precious when they come," she smiled, her calm gaze disconcerting him.

As if her words were the key to the puzzle, abruptly he discovered the cause of his unrest, the trouble that lurked at the bottom of his happiness. He and Frances had no plans! They had never had a single serious conversation! He looked at Carolina with kindling, grateful eyes. How easy it would be to set things right, now that he had discovered their mistake!

When, a moment later, the butler came to announce dinner, almost immediately Miss Sanford's partner appeared, and Norman went in search of Frances, but not before he had seen Mr. Taylor hurrying through the hall, hastily settling his tie, his face almost haggard in its uneasiness and pallor, while Carolina's eyes followed him with a look of tenderest pity.

Through the long, brilliant dinner, at which no one seemed really to eat much or to enjoy what he was eating, Norman watched Frances, wondering how she could so enjoy such an artificial social atmosphere and longing for the moment when he could broach to her the subject which was now engrossing him.

[CONTINUED ON PAGE 27]

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From Babylon

The Call That Brought Them on Thanksgiving

By Miriam Allen de Ford



FOR a minute Martha went to the kitchen window—more to dry her eyes unobserved than to look at the landscape, which was dreary enough at its best, and worse than dreary now. A long expanse of dry, brown fields, thinly powdered with the season's first snow, stretched to Baldhead Hill, where stood the farmhouse of John Cassell, their nearest neighbor.

Cassell's was stirring with life and merriment to-day. Milly Cassell was home from school, and Will from college, and both had brought young friends with them. Martha could see the mother bustling

about, the smoke coming from the chimney, all the cheerful sights that mean a holiday at home. Her neighbor's farm was a model one, the kind that summer boarders write up for the household magazines. There were all the latest farm appliances, and in the house there were modern plumbing, electric lights and a telephone. Mr. Cassell owned a small automobile; Mrs. Cassell belonged to two women's clubs in Eastwater; their living-room was littered with magazines and newspapers. New books that were worth reading were bought or borrowed from the library.

There were none of these things in Martha's life. She still drew water from the pump, and broke the ice on the pitcher in winter; she seldom left the farm, and practically never had visitors; and the county weekly was her slender link with the world outside. Worst of all—and fresh tears fell on the blue gingham apron—her children were all far away; there was no home-coming for them at Thanksgiving, and never would be.

Howard was in the navy; he had left home as soon as he was twenty-one, glad to escape from the petty tyranny of accounting for his every move, of explaining his every word and thought, of asking permission, almost, to breathe. When he had fallen in love with a neighbor's daughter, and his father had stormed and raged for two days at such ungrateful audacity—"I have trained you, sir, to be a help to me in my old age, and not to go trapesing off as soon as you are a man with the first pretty girl you take a fancy to!"—Howard had simply packed up, bade good-by to his mother and the girl, and gone to the city, where he had enlisted. He was chief petty officer now, and in line for still further promotion. The girl was to join him in February, when next he came ashore, and they were to be married. Martha had his letter safe in the pocket of her blue gingham apron, but a letter, however long and loving, was not Howard.

One might have expected George to go. He had always had a natural turn for machinery; the barn used to be full of his contraptions, jealously guarded, and carefully explained to the sympathizing mother only. But "Farming's enough machinery for George," his father had decreed; and George, always rebellious under discipline, had run away from home. Martha alone knew what the band of white in her dark hair meant—what sleepless nights of anguish when no word came from her boy, perhaps in danger, perhaps sick, in that city which the father called always "Babylon." All had turned out well; George was a bridge-builder now, and successful; but the stern old father had forbidden him the house, and he was still in Babylon.

Hilda went next—her only girl. It might have been foreseen that she, too, would long for the wider, freer life of the city, with Milly Cassell to encourage her. "You study stenography," said Milly, "and go earn your own living, where your father can't pray at you and order you around." There had been a frightful scene. It had never occurred to Ezra Burr that his women-folk could defy him; his wrath had been so terrible that even the timid Martha had intervened, smuggled Hilda off, with her blessing and eight years' egg-money, and taken the blame herself. It had been a dreadful winter.

But still there had been always Dave, the baby, the home body, the boy who loved the farm and the country as he loved nothing else on earth except his mother. And now Ezra had driven even him from home. Dave had wanted to study agriculture, to bring the old place to its scientific limit of productiveness, to make of it a farm like Cassell's. His father had sneered at him beyond endurance; Dave's temper had flared up, and now he, too, was gone. He was learning all he wished; but he was ninety miles away, and his mother had not seen him for a year.

And this was Thanksgiving Day! Martha smiled bitterly as she looked at the big stove, laden with turkey and squash and sweet potatoes, and thought of the mince and pumpkin pies in the oven underneath, of the celery and cranberries already on the table. What was the good of all this mockery, with only Ezra and herself to stare at each other across the board? But Ezra, arbitrary as always, had insisted that they have the great dinner of the old days—even that the extra boards be put in the table, as when Howard and George and Hilda and Dave were all at home. Did he ever consider that it might hurt her to remember? Martha wondered. Was it possible it did not hurt him at all?

Still, when Ezra made requests, or, rather, gave orders, of this sort, Martha hastened to obey them, with a sort of anxious eagerness, for Ezra had not seemed himself for the past two weeks, and she was worried. His strange conduct had started with a morning when he had wakened her at three o'clock by a startled cry, such as she had never heard from him in the thirty years of their life together. He had had a bad dream, he explained, shamefacedly. He had gone to sleep again; but the next morning he had left his work in the fields to talk for a long time with John Cassell. This in itself was disquieting, for Ezra had always held their neighbor in contempt, and lost no opportunity to jeer at him and his new-fangled notions. But now interviews with him became frequent, and several times Ezra had even hitched up and gone to Eastwater, the county seat, where the trains came in, and a town that he had always heartily despised. He had acted queerly in other ways, too; and yet he would give no answer to her pleading,

questions. When, this very morning, she had seen him go off with Cassell in his automobile, Martha knew that something was seriously wrong with her husband.

The familiar bark of the automobile-horn sounded outside, and Martha hastily dried her eyes; Ezra hated to see her cry. In a moment she heard him come up the back porch—but someone seemed to be with him. The door opened, and Martha was fairly lifted up in the grasp of two strong young arms. It was Hilda!

"I wrote Hilda to come home Thanksgiving, Martha," said the father, gruffly. "Seemed like it was a better place for her than that den of iniquity where she lives now." But neither the girl nor her mother noticed his manner in the joy of being together again.

Half an hour later, there was a sudden cheery whistle at the kitchen door, a whistle that brought a catch to Martha's breath. And there stood George, smiling and with tears in his eyes!

"I got your letter, Father," he said, when he had let his mother go, "and it's all right. We'll just forget what happened and start fresh, sir."

"Hilda, help your mother bring in the dinner," growled Ezra Burr, by way of answer, with a queer little quiver in his voice.

"There's Billy Weatherbee!" exclaimed Hilda, suddenly. Billy was telegraph operator and telephone "central" of Jordanville; he now carried a bit of paper at which he kept looking with a kind of awed pride.

"It's a wireless, telegraphed from the city, Mrs. Burr," he explained, reverently. "I never saw one before."

Martha unfolded the slip with trembling fingers. "Have Father's message," she read, "Florence and I will be married in the home parlor in February. Happy Thanksgiving and love to all. Howard." She had been wishing this.



"The door opened . . . It was Hilda!"

Martha looked at her husband with a sudden swift fear as to his sanity. Ezra actually turned red.

"I forgot to tell you Florence was coming to dinner to-day," he said. "Cassell and I will pick her up on our way back with George's trunk. You'll have to wait dinner just a bit longer, after all."

"George's trunk!" cried Martha. "Is George going to stay?"

"He's got the contract for the new bridge at Eastwater, and that's a year's job, so he might as well," answered Ezra, ungraciously. "There's Cassell now; keep dinner warm till we come back."

"I don't know what's come over your father," murmured Martha, as she carefully carried the dishes back to the stove. Then she settled down to half an hour of tender, joyous talk with Hilda and George.

When Ezra and Florence—the girl a trifle embarrassed, but shyly charming—finally appeared, it was with three big trunks.

"George! Did you bring all that?" exclaimed his mother.

"No, Mother, one's mine!" cried the dearest voice in the world; and for the third time that day Martha was clasped in the arms of one of her children. Dave was at home!

And this time Ezra did not wait for a question.

"Dave's going to get some lessons from Cassell," he said, "and then we're going to make the old farm over into something modern and up-to-date, and the house and ourselves, too. Do you want a gas-range, Martha, and a telephone?"

But poor Martha could only look at her husband with real terror, and remain in trembling silence.

When that bewildering dinner was over, Ezra Burr, the stern Puritan, reasserted himself.

"We'll wait the washing of dishes until we've had family prayers, as usual," he announced, harshly, "and you'll all take part in silence and respect."

When all was still, he opened the great, old-fashioned family Bible, a book more than well-known to his children.

"But first I've something to say to you," he started, and his words took on a sort of prophetic dignity. "You all know that for the first time in my life I've gone back on my word, or you'd none of you be here to-night. And I owe the Lord and you an explanation of why I've done so."

"Two weeks ago I dreamed a dream. It was more like a vision that came to me. I saw my children walking the broad path in that new Babylon. I saw them struggling to enter my home, to escape from the assailings of sin, and the door was bolted. Then a voice out of heaven said to me, 'Ezra Burr, you who accounted yourself righteous are living in sin. Why do you keep from these their birthright?'"

"And in my dream I saw that the world changes. I saw that things are not now as once they were. I saw that others might know as much as I do, or more. I am a proud man; it is hard for me to say these things, and to my children; but they are so."

"Then I dreamed that I tried to unbolt that door, but something held it, and I could not. And caught in it was your mother's hand, as she stood there weeping and pleading for her children."

"I awoke with the resolve to unbolt the door. I have humbled myself to each of you in turn; I shall not expect you to lack respect for me henceforth because of it. I even went for advice and help to our neighbor, whom formerly I had considered beneath me. And I humbled myself to the girl my son Howard is to marry."

"No—not that!" cried Florence; but Martha laid a gently restraining hand upon her shoulder.

"These things are over now," continued Ezra, "and many other things will be different in the future from what they have been. But I have saved you from Babylon. The Lord, Who is just always, has been merciful to you and to me."

And he opened the great Bible, and read, in his old, halting voice, "When I have brought them again from the people, and gathered them out of their enemies' lands, and am sanctified in them in the sight of many nations:

"Then shall they know that I am the Lord their God, which caused them to be led into captivity among the heathen," Ezra's voice broke entirely, but he went bravely on: "but I have gathered them unto their own land, and have left none of them any more there."

And for the first time in his life, Ezra Burr, Puritan, surrounded by his children, sobbed aloud.

But Martha, her heart too full for tears, gazed out of the window at the snow-laden sky; and her whole soul went out in a glad psalm of gratitude on this Thanksgiving Day.

Just a Smile or Two

A Turning Worm

"SEE that measuring-worm crawling up my skirt!" cried Mrs. Bjenks. "That's a sign I'm going to have a new dress."

"Well, let him make it for you," growled Mr. Bjenks. "And while he's about it, have him send a hookworm to do you up the back. I'm tired of the job."—Liverpool Mercury.

A Bird-Woman's-Eye View

THE aviator's wife was taking her first trip with her husband in his airship.

"Wait a minute, George," she said. "I'm afraid we will have to go down again."

"What's wrong?" asked the husband.

"I believe I have dropped one of the pearl buttons off my jacket. I think I can see it glistening on the ground."

"Keep your seat, my dear," said the aviator; "that's Lake Erie."—Youngstown Telegram.

Averted the Ducklings

"WHY is it," asked Rose Stahl, "that in the spring a young woman's fancy is so apt to turn to clucking hens? Last year one of my best friends abandoned the footlights and sought the actor's oft-dreamed-of paradise, a little home in the country."

"As a recreation she decided to start a poultry-farm, which she did with a barn-yard hen and thirteen eggs from the village store. Not having even the most elementary knowledge of poultry, she inquired of a neighbor how long eggs generally took to hatch. She received the reply: 'Three weeks for chickens and four for ducks.'"

"The neighbor met her some time afterward, and, on being asked how the poultry farming was going on, she replied, with a lowering countenance:

"Oh, I've finished with it. At the end of three weeks there were no chickens, so I took the hen off, as I didn't want ducks."—Young's Magazine.

The Reason

A KINDERGARTEN teacher tells a good joke on herself. She has been very strict in requiring written excuses from the mothers in case of absence.

The morning of the big snowstorm only a few of the babies made their appearance. The next day they all came with written excuses except one little fellow named Willie.

When asked for his, he said: "I did ferdit it."

He was cautioned to bring it the next day.

Willie's mother was quite disgusted. It seemed to her that anyone with the slightest pretensions to gray matter ought to know the reason for his absence.

The next morning he arrived all rosy with the cold and handed the teacher his excuse. It read:

"Dear Miss C.—Little Willie's legs are fourteen inches long. The snow was two feet deep. Very truly yours, Mrs. J.—"Philadelphia Bulletin.

SUNDAY

READING



NOTE—A strong, inspiring Thanksgiving sermon, preached to the great Farm and Fireside congregation by Rev. Charles F. Weeden of Boston. Thanksgiving began with a deliverance of the Massachusetts Bay Colony from famine; this sermon tells us of the famine in things more precious than food, more vital than raiment or roof, and from which we should deliver ourselves.

The Law of the Harvest

A Thanksgiving Sermon

By Rev. Charles F. Weeden, Harvard Church, Boston

WE LIVE in a universe where law governs life. Some people have not seen the ocean, some have never seen the prairie. We can imagine a person coming from far inland and standing for the first time upon the shore. Stooping and lapping a handful of water, there is an exclamation of surprise, "Why, it's salt!" "Yes, of course." "Is it salt all the way out, as far as I can see?" "Certainly." It is one of the laws of the ocean. So a boy in Ohio hurls a ball upward and it falls to the ground, and a youngster in Hongkong kicks his shuttlecock into the air and that falls to the earth—both in obedience to law. The same law swings the stars.

The Law of the Soil

The song of the harvest is always beautiful. Our toil has been multiplied a thousandfold. A man once tried the experiment of raising a harvest from a single seed. He put a kernel of corn into the ground; it sprang up and yielded two full ears. The next year he planted the corn of those two full ears, and had as a result nearly a bushel of shelled corn. This he planted again, and broad acres of large yellow ears at length rewarded his patient toil. It was a rich and precious harvest from one little seed.

Idleness, lack of care, breed a garden of weeds. A father once said that he would not talk to his son about religion—the boy should make his own choice when he grew up, unprejudiced by him. One day the boy broke his arm, and when the doctor was setting it the lad cursed and swore the whole time. "Ah," said the doctor, "you were afraid to prejudice the boy in the right way, but evil had no such prejudice." Are we to cultivate our fields, and allow our children to run wild? All are sowers and begin at the cradle. Do not be deceived, all men will be reapers just as sure as your silo is filled with the corn you planted. If you sow a grouch, you reap a lot of ill temper. If you scatter the sunshine, there will be brightness and warmth in human hearts and in your own. If a boy robs an orchard now, he is in line to steal a bank later on.

The Law Has a Wider Scope

With much that is noble in her history, France made a fearful mistake in the eighteenth century. It is said that men spent thousands of dollars every year in scattering infidel teachings in the land. What did France reap? More than a million persons were beheaded, shot, done to death, between September, 1792, and December, 1795. Since then France has had thirteen revolutions in eighty years.

The bumper crops gathered by our farmers and ranchmen yearly are magnificent. We do not want to lose the full value of the product of our soil. The material blessings of our land have increased with wonderful rapidity the last twenty-five years, and we need to sow, as we rush along, much seed of common sense, brotherly kindness, unselfish deeds and religious faith. Out of the throes of her revolution and skepticism the heart of France cried out, "It is necessary to have a soul!" All people and all nations will be reapers.

How shallow and short-sighted unbelief in religion is. Sir Isaac Newton, in his work on the prophesies of the Bible, said that if they were true, it would be necessary that a new mode of traveling should be invented. He said that the knowledge of mankind should be so increased before a certain time—namely, twelve hundred and fifty years—that they would be able to travel at the rate of fifty miles an hour. Voltaire got hold of this, and, true to the skepticism of all ages, let himself go in

this fashion: "Now look at the mighty mind of Newton, who discovered gravitation! When he became an old man and got into his dotage, he began to study the book called the Bible, and it seems, in order to credit its fabulous nonsense, we must believe that the knowledge of mankind will be so increased that we shall be able to travel at fifty miles an hour! The poor old dotard!" Perhaps Voltaire would like to try a spin in our seventy-mile-an-hour flying-machines, or consent to be hustled over an automobile course, running a mile in fifteen seconds! Who was the real dotard? Who sow and reap better than the men of faith?

Men will reap in kind what they have sown. The professor who brought the gipsy-moth to this country, and carelessly allowed its escape from his laboratory, has reaped a harvest of bleak forests and fruitless orchards. The field always repays in just the kind we sow. A bin of apples from one tree, but always apples from the apple-tree; tall elevators of wheat, not from alfalfa, but from wheat.

Another Leaf from the Past

Valens caused a ship-load of people to be sent to sea and the ship set on fire; he was defeated by the Goths and fled to a cottage, where he was burnt alive. Alexander VI. was poisoned by wine he prepared for another. Henry VIII. of France was stabbed in the same chamber where he had helped to plan cruel massacres. Marie Antoinette, riding to Notre Dame Cathedral for her bridal, bade the soldiers command all beggars, cripples and ragged people to leave the line of the procession. Soon after, bound in the executioner's cart, she was riding toward the place of execution, amidst crowds who gazed on her with "hearts as cold as ice and hard as granite." When Foulon was asked how the starving populace was to live, he said, "Let them eat grass!" Afterward, the mob, maddened with rage, caught him, hung him, stuck his head upon a pike, and filled his mouth with grass. We shall reap in kind what we have sown, and we shall reap manifold more than we sow.

If we sow blessings, we shall reap the reward in kind. Our government is sowing rubber-seeds in the Philippines. Think of the rubber boots and galoshes the world will therefore some time wear! A little girl went singing through the streets, "God's in His heaven, and all's well with the world," and scores of discouraged people who heard the sweet childish voice and caught the words took heart and hope again. Good things multiply more than we think.

Thanksgiving Day Teaches Us

many lessons of the blessings of seed-sowing and harvest-reaping. But let us remember, none of this is accomplished without toil. Plutarch tells of a dream. Antigonus thought he entered a large and beautiful field and sowed it with filings of gold. This produced a crop of the same precious metal; but because he neglected the reaping, he found it was cut, and nothing left but the stalks, while afterward he heard that "Mithradates had reaped the golden harvest and gone off with it." We are not to be visionary, but to plow, harrow, sow, hoe, and gather into our barns. Some delay and find the hour of ingathering and opportunity gone.

With all our harvests garnered, and families all over this great and prosperous nation meeting for the thanksgiving feast, we ought to be diligent in cultivating the things that will protect our sons and daughters, and preserve all that makes an American home sacred and happy. We believe religion is the safeguard. Some-

times we ask, in the midst of our abundance and the whirling panorama of life, what is it all for, this life of ours? What is the best thing you have ever done for another? That will tell you what life is for. Not always, so faith teaches us, do we reap in this world. The law is inevitable. "Sow a thought, reap an act; sow an act, reap a habit; sow a habit, reap a character; sow a character, reap a destiny." There is a man in Michigan who has not "died rich," but has given the bulk of his fortune for education and religion. Thousands of young men and young women will bless him in this world, and in the other world he will reap untold rewards of blessing and joy.

Our Pilgrim fathers and mothers had mighty convictions. "Freedom to worship God," they cried. Some men are thinking of almost everything to-day except their souls. Life is "seed-time for eternity." The summer is ended, the harvest is past. Have you provided for your deeper, better, everlasting self? Have you filled your storehouse to the rafters, but starved your soul? Sow money, and reap a fortune—but if that is all, what will it profit a man if he gain the whole world? Every earnest soul asks, "How may I sow aright?" Sow each hour, each day, with the brave heart of the Mayflower pilgrims and with the faithful spirit of the true Christian.

All the world is God's own field,
Fruit unto His praise to yield;
Wheat and tares together sown,
Unto joy or sorrow grown;
First the blade and then the ear,
Then the full corn shall appear;
Lord of Harvest, grant that we
Wholesome grain and pure may be!

Don't Crowd

DON'T crowd; the world is large enough
For you as well as me;
The doors of all are open wide—
The realm of thought is free.
In all earth's places you are right
To chase the best you can—
Provided that you do not try
To crowd some other man.

Don't crowd the good from out your heart
By fostering all that's bad,
But give to every virtue room—
The best that may be had;
Make each day's record such a one
That you might well be proud!
Give each his right—give each his room,
And never try to crowd.
—Charles Dickens.

The Worker

HE CLOSED his eyes and drank life deep,
For him the lees spoiled not the wine,
He asked of God nor seal nor sign,
Content to sow, content to reap,
Without one thought of meed divine.

In sweat of toil he found life's zest,
The moment's work was mastering lord,
The long day's call a two-edged sword
To fight one's way to well-earned rest;
The joy of work was work's reward.

"But why and wherefore? Say, what end
To all thy ceaseless toil? What lies
Before, beyond? Why forge new ties
To earth for Death's fell hand to rend?"
These his fellows' taunting cries.

He puzzled long. What had God meant?
He never learned. No sage was he
To solve God's deep philosophy.
Once more he toiled in faith content;
And faith dissolved life's mystery.
—Harold S. Symmes.

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Novel Pincushion, Fifty Cents

THERE are so many of us worrying about what to get for her or them for Christmas that I thought I would try to help. The presents you see pictured on this page were bought at little cost. In fact, not one of them cost more than fifty cents. There is no doubt that the Christmas present you can make yourself is much more sentimental. But some of us are so busy that we have to buy ours, and there are so many to buy for that we must be economical. Still, we want them nice, and so, with all these thoughts in mind, I went a-shopping, and you can see on this page just what I brought home. I began with the pincushion of Dresden china silk. There is a little rest for the thumb on it and a place for embroidery-scissors. The entire cost was only fifty cents. Of course, pincushions are not new, but whoever gets this pincushion arrangement for Christmas will be sure to appreciate its novelty as well as utility.

Then, look at this linen-covered book intended to hold recipes. Instead of pages, there are six stout, manila envelopes, and on the flaps you find such headings as "Puddings," "Pies," "Meats," etc. The decoration on the front cover is done in pinks and greens and painted on, not stamped. Pale-green ribbons tie both covers together. For the woman who loves to cook and desires a handy place to keep treasured recipes, you could not find a more sensible gift. And this, too, costs but

Linen Recipe-Book, Fifty Cents

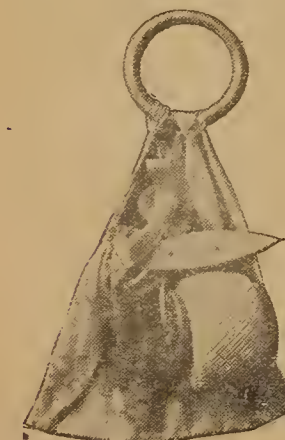


Silver Frame, Thirty-Five Cents

fifty cents, and will prove to be worth more. A pin-tray shown on the right suggests the Christmas season. It is made of some heavy, white metal which looks like silver and might be German silver for all I know. It is a veritable Christmas pin-tray, for the beautiful design is all holly and mistletoe, and the red berries of the holly are suggested by insets of imitation coral. You will scarcely believe that this attractive gift was bought for ten cents.

For the boy or girl going to school this little pocket case is a most necessary gift. It comes in dull-green or dull-red imitation leather. Inside it is a mirror, while opposite the mirror are a comb and two implements that make up a neat manicure-set. These

Comb-Case, Twenty-Five Cents



Tatting-Set, Fifty Cents

and the comb are in imitation tortoise-shell. The entire cost of this is but twenty-five cents, mirror, manicure-set, case and all. Then there is the tatting outfit. This consists of a white bone shuttle, a spool of cotton used in making tatting, and a Dresden china silk bag which is to hold the finished lace and keep it from soiling. All three of these articles are attached to a white ring which keeps them in one place, and means that you don't have to hunt for each separate article when you want to begin

your tatting. This gift costs only fifty cents, and the set is really unique.

No one with the least bit of vanity could forego this princess mirror. It is a dull gold, or rather something that looks like it, with a miniature head in color, and covered with glass on the back, and the mirror part, on the reverse side, is of plate glass. Any young girl would be delighted with it, and her older married sister will be proud indeed to put it on her dainty dressing-table.

If mother wants a frame for daughter's picture, or father wants one for one of the girls, or your sweetheart, or your brother, or your best girl friend, or, in fact, if any of your friends want a picture-frame that is really beautiful, you can't do better than present all of them or any one of them with a picture-frame such as is illustrated. It is about two inches high, has a purple-velvet back and

stand; and, pressed in on the foot of it, I found the word "sterling," and it only cost thirty-five cents! Wouldn't that make a pretty gift, especially if your own picture were in it?

Fancy chains are suitable for almost anyone. You can hang your party fan on it, or your mother can wear her watch on it or her gold spectacles, or your sister might want it for a vanity case. In fact, there is no end to the number of things you might do with a nice gold chain, such as is pictured.

Of course, it isn't solid gold. No one could expect that for fifty cents, but it really is very pretty and ought to wear well. The stones in it are amethysts in color, and altogether it makes a most attractive-looking gift.

To the friend who writes a great deal you might send the blotting-pad. The ends are finished in a pretty cretonne, and the pen-wiper and blotter are covered to match. This set costs fifty cents, and I thought it was a wonderful bargain. In fact, until I inquired a second time I could hardly believe it could be bought for fifty cents.

When at a loss to think up something better to give, it is a good plan to give a girl or a woman a set of fancy pins.

There are so many ways she can use them. The pins which are shown in the picture have a very neat design and appear to be strong. They come in a novel green-covered box that has a white satin lining and a tiny brass clasp to keep it shut. Indeed, when it is closed, it looks very much like a little green football. This only costs forty-five cents.

A shopping-pad is bound to be useful. You will see one to the right near bottom of page covered with pale-blue satin and painted with a figure of a pretty child about to go a-shopping. The back of the pad is fitted



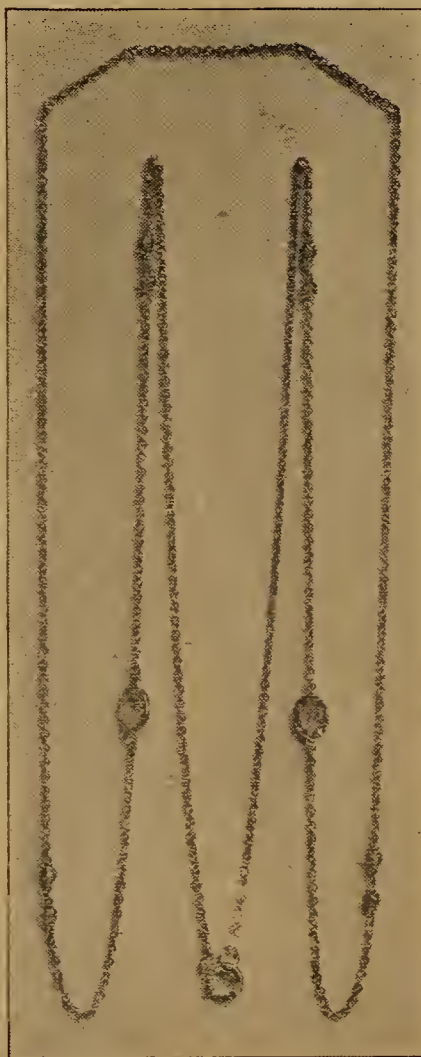
Dull-Gold Finished Princess Mirror, Fifty Cents



Copper Fern-Dish, Fifty Cents



Cabinet, Twenty-Five Cents



Long Chain, Stone Settings, Fifty Cents

with loose sheets, upon which can be written just what is needed when next you go to the store. There is a blue ribbon to hang it up by and a longer blue ribbon to hold a white-enameled lead-pencil. This cost just twenty-five cents.

Then there is the fern-dish of brass or copper. It has three claw feet and makes a pretty spot of color in a room. Perhaps in sending it away you would like to fill it with holly or put a fern in it. Such bits of brass or copper are quite the fad just now. This one

only cost fifty cents.

On a dressing-table or bureau the cretonne cabinet will be a very useful thing, for the three small drawers can hold pins, hair-pins, collar-buttons and all the other necessities of a dressing-table and hide them away in a very tidy fashion. This little cabinet only cost twenty-five cents. It is made of a figured cretonne, and a narrow band of ribbon encircles it. Each little drawer has a tiny brass catch, so that you can easily pull it out without disturbing the rest of the box.

Girls will powder their noses! And I suppose a bit of talcum powder is not so very harmful after all. Anyhow, if you believe in it, and you have a friend who does likewise, you might send her this little powder-purse. It looks very much like silver, though, of course, it isn't. And there is a tiny mirror in the lid of it. It is a very little larger than a watch and quite flat. It could be attached to a silver chain or might be easily slipped into a purse or a shopping-bag. This costs forty-five cents.

There are so many more things to be seen in the big stores that I have made no mention of, that this seems like a very small list to be showing as the result of a day's shopping in a big city.

But, you see, there are so many things that you can buy at home and so many more things that you can make at home that I tried only to get those things that you cannot get except in a big city.

Now I've been turning over in my mind what things would be appropriate for what people, with the result that I have made a little list, all to myself, and this is the way it stands at present:

There's a sick friend—why not fill that copper or brass fern-dish full of ferns or holly or spruce or some of the Christmasy things that are easy to get, yet which mean so much to a friend? Do you know, it's often the thinking about a person, and doing something for him, that counts in friendship, not so much what you give, nor how much the thing given is worth?

Well, then, there's the recipe-book. Why not send it to an aunt or cousin or friend, and fill those envelopes with your favorite recipes? Or, if you know little about cooking yourself, you can clip excellent and tested recipes from



Pins in Case, Forty-Five Cents

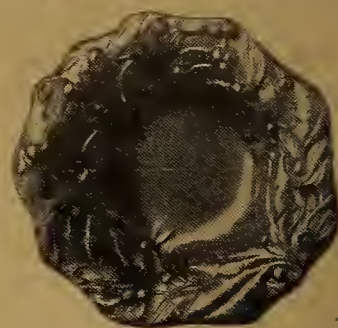
FIRESIDE, and put them into the envelopes that go to make up the pages of the recipe-book.

You see how a thought is going with each of these presents.

Slip into the frame the kodak picture that your sister likes best, or get a snap-shot of the girl in high school that your big brother is fondest of, and give it to him for Christmas. Or you might take a picture of the youngest in the family, and give it to mother or to father for a gift that will appeal to the love and devotion of a parent.

If you have a small brother or cousin or friend who needs little reminders as to finger-nails and partings of hair, on coming to the table, you can send him the little case with the comb and manicure fix'n's in it, and thus, without a word, foster an interest in those things which he needs most to notice.

Does your grandmother know how, and it is becoming such a fad nowadays that the granddaughters will soon be able to show them new patterns. Such an



Pin-Tray, Ten Cents

outfit is a pretty gift for anyone with a taste for fancy work and who likes to do tatting.

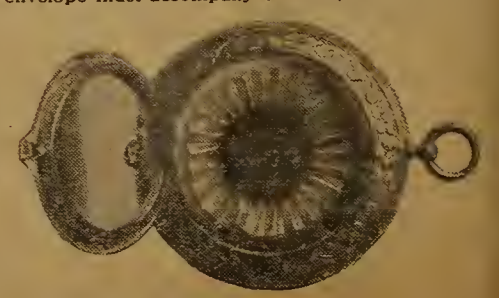
The princess mirror will delight a girl who is making up a set for her dressing-table. You might pay her a little compliment by writing on the card when you send it, "It's pretty when you look at either side of it."

Give some busy housemother the shopping-pad, and see how many steps will be saved for her in searching for "pencil and paper to write it down."

There isn't space to tell of the uses these gifts might be put to. And there's always someone to think

of after all the pretty things that you have planned have been given away or are arranged to be given away.

EDITOR'S NOTE—The editor will be pleased to send upon application the addresses of the firms having these gifts for sale. A self-addressed, stamped envelope must accompany each request.



Vanity Box, Forty-Five Cents

Dishes for Winter Days

By Beulah Tatum



WHEN drift the snows,
And the north wind blows,
Hurrah for the pudding and
pie!
For things rich and sweet,
For nuts and for meat,
We have a loving eye.

Winter Vegetable Soup—A soup-bone, or a piece of soup-meat; two potatoes, cut into dice; one-half cupful of rice; one-half cupful of macaroni, broken fine; one cupful of chopped cabbage; one small onion, grated; the juice from one quart of tomatoes; salt, and celery salt. Put the meat on in two quarts of cold water; let simmer till tender, keeping same amount of water. One hour before dinner, add all the other ingredients, and salt to season well. Just before serving, add a lump of butter and a pinch of celery salt. Serve with crisp crackers. This makes an entire dinner, with the addition of a fruit dessert.

Beef and Dumplings—Beef and dumplings make a fine wash-day dinner. Put to boil a three-pound chuck roast. When very tender, brown it in the pot, then add one quart of hot water, and salt to taste. While this is boiling, mix up the drop-dumplings: Two cupfuls of sifted flour, two teaspoonfuls of baking-powder, one teaspoonful of salt. Stir into a rather thick batter with sweet milk. Drop by tablespoonfuls into the boiling beef-pot, cover tightly, and let boil ten minutes. Serve at once.

Scalloped Oysters—One pint of oysters, one pint of rich milk, a lump of butter the size of an egg, one pint of cracker-crumbs. Into a granite baking-dish pour sufficient cracker-crumbs to cover bottom. Upon this put a layer of oysters, another layer of crumbs, upon which dot bits of butter, sprinkle salt, pour on creamy milk to soften, and add the oysters. Proceed in this way till the dish is full, having crackers on top. Add more milk if it is not juicy enough. Bake twenty minutes in a hot oven. These will be fluffy and delicious.

Baked Beans—One quart of navy beans, soaked overnight. Parboil till tender. Place in bean-pot, and cover with hot water. Add one tablespoonful of New Orleans molasses, one tablespoonful of good catsup, one teaspoonful of salt, and a pinch of soda. Have one third of a pound of good salt-pork; press down into beans. Bake in a slow oven six hours. One hour before serving, remove lid from bean-pot, and let beans brown; stir occasionally all day.

Macaroni and Cheese—Grate four tablespoonfuls of cheese, add one-half cupful of sweet cream, mix one tablespoonful of flour with cold milk till smooth, salt to taste, and cook all this to a custard. Break one-half pound of macaroni into inch pieces, and soak one hour in cold water. Boil till tender. Put into a granite pan, mix the custard well into it, add cold milk to make rather thin. Sprinkle well with fine cracker-crumbs, dot with butter, and bake thirty minutes in hot oven.

Fritters—One pint of sweet milk, two beaten eggs, one quart of flour, three tablespoonfuls of baking-powder, and salt to taste. Fry a golden brown in deep fat, and serve with maple syrup. One cupful of apples can be added to the above batter if desired.

Nut Bread—Three cupfuls of white flour, three cupfuls of graham flour, one egg, one-half cupful of sugar, four teaspoonfuls of baking-powder, one cupful of chopped English-walnut meats, four cupfuls of cold water and one-half teaspoonful of salt. Put into deep pans, and let stand one hour. Bake in moderate oven one hour.

Butter-Scotch Pie—Too rich for any but a cold day. One and one-half pounds of dark-brown sugar, one-half pound of butter, three and one-half cupfuls of milk, six eggs, five rounding tablespoonfuls of flour, one rounding tablespoonful of corn-starch, and one tablespoonful of vanilla. Boil the butter, sugar and milk together until thick. Remove from fire, and add the flour and starch, which have been beaten smooth in cold milk. Beat three whole eggs and three yolks; add to the custard, and cook all till thick again. Fill already baked crusts with the cooked mixture; beat the three remaining whites stiff, add three tablespoonfuls of white sugar, and pile on the pies. Brown in hot oven. Serve cold. This makes three deep pies.

Apple Dumplings—Pare and core tart apples. Make a rich biscuit-dough. Cut into large rounds, and place a cored apple in each round; wet edges, and press together; cut two or three slits in each side of dumpling. Put one quart of water and one cupful of sugar into a large granite pan. Let come to a boil on top of stove; add one tablespoonful of butter and a little cinnamon, drop in the dumplings, and bake twenty-five minutes in a hot oven. Serve with rich cream.

Date Puffs—Two eggs, one cupful of sugar, one-fourth cupful of milk, one and one-third cupfuls of flour, one teaspoonful of baking-powder. Mix thoroughly. Add one cupful of chopped dates. Pour in buttered cups, and steam thirty minutes. Serve with a rich sauce, or cream.

The Christmas Pudding—One cupful of butter (or lard and butter mixed), two cupfuls of flour and two eggs. Work these ingredients thoroughly together. Add one

cupful of New Orleans molasses, one cupful of raisins, one cupful of currants, a pinch of salt and one teaspoonful of soda, dissolved in two tablespoonfuls of sweet milk. Steam three hours, and serve with cream, or sauce. This pudding served hot, with a generous helping of frozen whipped cream on each slice, is something to dream about.

Prune Pudding No. 1—One and one-half pounds of prunes, cooked, seeded and mashed; one and one-half pounds of sugar; one-half pound of butter; three eggs; one teaspoonful of cinnamon.

Prune Pudding No. 2—Over one pint of bread-crumbs pour one pint of boiling milk. Mix No. 1 with No. 2, bake one and one-half hours, and serve with cream.

New Year's Fruit Cake—This cake improves with age, and can be baked any time it is desired: Three-fourths pound of butter, nine eggs (beat whites and yolks separately), one pound of flour, one pound of brown sugar, one tablespoonful of baking-powder, one and one-half pounds of raisins, one pound of currants and one-fourth pound of citron, sliced. Cream butter and sugar together. Stir in beaten yolks. Then add a handful of the fruit, mixed and floured; a spoonful of the beaten whites, and a little flour, alternately, till all is used. Beat well. Let oven be moderate, so cake can raise. Bake in two deep pans for three hours. Keep in tight tin can or box till wanted, and ice just before using.

Country Ice-Cream—This is sometimes called "Frozen Angel-Food," and deserves the name. Beat the whites of four eggs very stiff. Pour over this a syrup made of one cupful of sugar and one-third cupful of water, boiled till it spins a thread. Beat well. Then whip one pint of rich cream stiff, and fold into the egg. Flavor with vanilla. Dip freezer-pan into cold water. Pour in the angel-food. Pack in ice and salt, as you would ice-cream. Let set in cold place four hours. Then run a sharp knife around, and turn the angel-food out on a plate. Cut in thin slices, and serve with some dainty cake.

French Doughnuts—Three pounds of flour, sifted; one quart of milk; six ounces of butter; three eggs, and one cupful of sugar. This will make a goodly quantity. Make a sponge the evening before, as for bread, by mixing a yeast-cake in a little of the flour, mixed with a half-pint of the milk. The yeast-cake is first dissolved in half a cupful of lukewarm water. Cover close, and allow to rise in warm kitchen.

In the morning put the butter into the milk, and warm gently until it melts. Add to the sponge the milk, three eggs lightly beaten, the sugar and the remainder of the flour. The dough should be quite stiff, and should be well worked with a wooden spoon. Cover with a cloth, put a plate over (to prevent any skin from forming on dough), and allow to rise one hour. Work down again, roll out on floured board about half an inch thick, and cut in small circles or triangles. Drop in boiling fat, turn with skimmer, and boil (not too fast) for from five to eight minutes until a rich golden brown. Place white paper in the colander, and allow the doughnuts to drain. Now drop into a bowl of powdered sugar, to which has been added a little ground vanilla or cinnamon. Turn until well sugared. They could not hurt a dyspeptic.

Fruit Tartlets—Line the molds with a rich pie-crust, and pour in the following filling: Half a cupful (heaping) of sugar, grated rind of one lemon, two teaspoonfuls of cream, two eggs and a heaping tablespoonful of soft butter. Add to this five or six good-sized apples, cut in small chunks. Bake from twenty to forty minutes. Serve just before they are quite cold, sprinkled with powdered sugar. They are very fine.

Making and Using Marshmallows

By Elma Iona Locke

HOME-MADE marshmallows are quite a little cheaper than the best confectioner's goods, and will allow a freer indulgence in marshmallow-roasts, etc., to the lover of sweets.

Dissolve three ounces of clean, white gum arabic in one cupful of hot water, strain, add one cupful of powdered sugar, and let boil for ten minutes, or until the syrup has the consistency of honey, stirring all the time. Add the stiffly beaten white of one egg, removing from the fire, and mixing thoroughly. Add flavoring to taste: either tincture of marshmallow, rose, vanilla, or orange-flower. Pour the paste into a pan dusted with corn-starch; it should be one inch thick, and when cold, cut into one-inch squares, and roll in powdered sugar. Keep in a tin box to prevent drying too much.

MARSHMALLOWS WITH GELATIN—Dissolve two rounded tablespoonfuls of granulated gelatin in eight tablespoonfuls of cold water. To two cupfuls of granulated sugar add eight tablespoonfuls of water, and heat until the sugar is dissolved. Then add the gelatin to the syrup, and let it stand until partially cooled. Add a few grains of salt, and flavor to taste. Beat with an egg-whip until too stiff, then with a large spoon until only soft enough to settle into a sheet. Pour into buttered tins dusted thickly with powdered sugar, and cool until it will not stick to the fingers. Then turn onto a paper dusted with powdered sugar, cut into squares, and roll in sugar.

PLEASE note particularly that you will receive the beautiful Christmas number of **WOMAN'S HOME COMPANION**, with our compliments, if you send your subscription for 1912 by December 14th.

As soon as the Christmas number arrives, give the children a pair of scissors and let them cut out the "Jack and Betty" page. They will make of it a wonderful little book full of thrilling adventures.

Jack and Betty will keep the children joyously busy until they come to the page of Kewpies, the droll, delicious, amazing Kewpies, whose wonderful lives are told in colored pictures and verse by Rose O'Neill and which are intended for children of all ages, especially those who grew up long ago and whose outside is very serious.

The children will insist upon having the **COMPANION** each month in the year. So will you.

In the rush of Christmas plans you will consult again and again the 150 practical suggestions for easy-to-make gifts, with complete working instructions for making pretty presents that really are wanted; but your chances at having the number for your own use will be lost if the other members of the family start to reading "The Christmas Company, Limited," "When a Man Loves" and the six other stories. They will make you wait until they have finished the tales.

Every **FARM AND FIRESIDE** family should take

WOMAN'S HOME COMPANION

You most surely need the **COMPANION's** valuable special features which have made it the foremost home magazine—the departments for housewives, for mothers, for girls, for little folk, for club-women, for needleworkers, and the best fashion department published anywhere, as well as the most useful. Why, there is a special department, written by a famous doctor, called "The Healthy Baby." "Making Things," articles for boys and girls, will continue to be an important part of the plans for younger readers.

Seventy-five stories—the equivalent of five volumes of the latest fiction—will come to you in the **COMPANION** for 1912. Besides, you will receive three complete novels.

The **WOMAN'S HOME COMPANION** is the home magazine of the highest quality, of the greatest worth. It is a big, beautiful magazine published every month by the publishers of **FARM AND FIRESIDE**.

You will receive the beautiful Christmas number, with our compliments, if you send your subscription for 1912 on the blank below before December 14th.

CUT OUT HERE

Woman's Home Companion, Springfield, Ohio

Please enter my subscription for the year 1912. Also send me the Christmas 1911 number without cost. Enclosed find \$1.50, the special Christmas price to **FARM AND FIRESIDE** readers.

Name.....

R. R. or Street.....

Town..... State.....
(Nov. 25 P. & F.)

Christmas Presents from the Santa Claus Bag

Toys to Please the Children

Each Can Be Made from a Ten-Cent Pattern



No. 1915—Doll's Play Dress and Apron

Pattern cut for dolls 14, 18 and 22 inches high. Quantity of material required for doll 18 inches high: for the dress, one-half yard of thirty-six-inch material; for the apron, three eighths of a yard of twenty-seven-inch material. Price of pattern, ten cents. Any piece of bright-colored gingham would make a nice play dress for dolly like the above design, while the apron may be of cross-bar dimity or fine nainsook.



No. 1913—Rag Doll and Russian Dress

Pattern cut for dolls 14, 18 and 22 inches high. Material for rag doll 18 inches high, three fourths of a yard of thirty-six-inch white material; for the dress, one-half yard of thirty-six-inch material, with one eighth of a yard of contrasting material for trimming. Price of pattern, ten cents.



No. 1914—Clothes for Character Doll

Pattern cut for dolls 14, 18 and 22 inches high. Quantity of material required for doll 18 inches high: for the one-piece dress and bag, one-half yard of thirty-six-inch material; for the Dutch dress, one-half yard of thirty-six-inch material; for the collar, one eighth of a yard of white material, and for the apron, one fourth of a yard of white material. The price of pattern, which includes both costumes, is ten cents.

THIS is the time of year when mother will want to be busy helping Santa Claus by making up beautiful tame and wild animals and lovely dolls' clothes for his great big bag which he is going to bring down the chimney on Christmas eve. To help her in her work, mother will want to use some of the patterns for dolls, dolls' furniture and animals here illustrated.

Woman's Home Companion Patterns

No woman who makes her own clothes, her children's clothes, or even her children's dolls' clothes can afford to be without WOMAN'S HOME COMPANION patterns. For this reason every woman will be interested in

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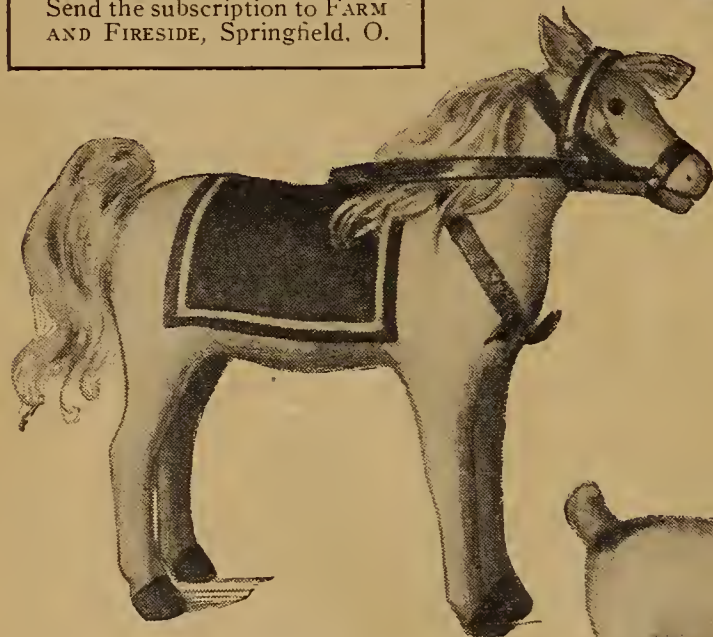
To any FARM AND FIRESIDE reader sending us one new subscription to FARM AND FIRESIDE at the special club price, thirty-five cents, we will give as a premium one WOMAN'S HOME COMPANION pattern. Send the subscription to FARM AND FIRESIDE, Springfield, O.

FOR a boy to have real fun with, there is nothing like a jointed monkey who can move his arms and legs into most laughable positions, a nice cow and horse or a gentle little lamb which he can play farm with. Although any little boy will be glad to have one of these animals for Christmas, sister will not be interested in them, so the dolls and doll-house furniture were planned to make her happy on Christmas morning.

Where to Send Your Pattern Orders

Since establishing our new pattern-depots, no time is lost in the delivery of WOMAN'S HOME COMPANION patterns. If you will send your order to the depot nearest your home, the patterns will be delivered in a surprisingly short time. They cost but ten cents apiece and may be ordered from Pattern Department, FARM AND FIRESIDE, 381 Fourth Avenue, New York; Pattern Department, FARM AND FIRESIDE, Springfield, Ohio, or Pattern Department, FARM AND FIRESIDE, 1538 California Street, Denver, Colorado.

The fall and winter catalogue of WOMAN'S HOME COMPANION patterns, costing four cents, may also be ordered from the pattern-depots.



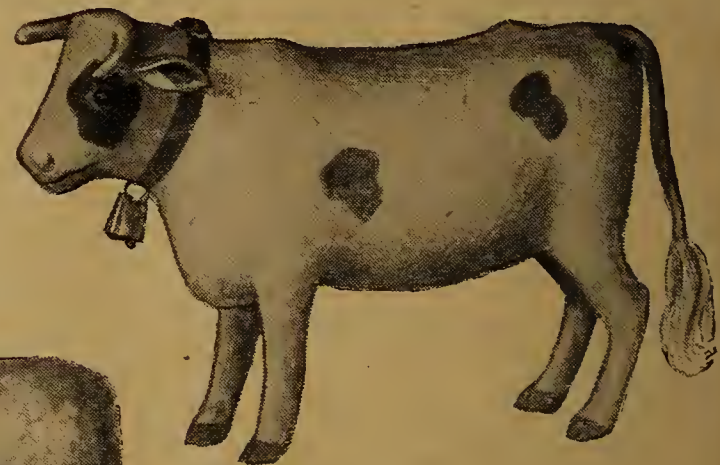
No. 1920—Horse with Blanket

Pattern cut in one size. Quantity of material required, three eighths of a yard of thirty-six-inch material, small piece of red cloth for blanket, and black for the hoofs, and two buttons for the eyes. Price of pattern, ten cents. This nice horse will be a fine animal for the little boy to play with, and mother will find he is just the sort of a toy Santa Claus will want to put in his big bag.



No. 1912—Witch Doll and Clothes

Cut in one size only. Material for body of doll, one fourth of a yard of blue cloth; for legs and bloomers, one fourth of a yard of gray cloth; for hat and shoes, one eighth of a yard of black cloth; for head and hands, one eighth of a yard of pink felt, and buttons for eyes; for clothes, one fourth of a yard for petticoat, one fourth of a yard for apron, and one-half yard for cape. Price of pattern, ten cents.



No. 1916—Toy Cow

Pattern cut in one size only. Quantity of material required, three eighths of a yard of thirty-six-inch material, and buttons for eyes. Flannel is a good material for this cow, and she may have a collar and bell. Price of pattern, ten cents. This cow will never fit into a little boy's stocking, but she will look very natural standing under the tree on Christmas morning, when she will be sure to receive a warm welcome.



No. 1917

No. 1917—Stuffed Dog

Pattern cut in one size only. Quantity of material required, three eighths of a yard of thirty-six-inch material, small piece of pink velvet for inside of ears, buttons for eyes, and brown embroidery-silk for nose. Price of pattern, ten cents. A real bulldog is not always the sort of playmate a little boy will want, but a nice stuffed dog like this one will surely be gentle and kind and perfectly safe to have in the nursery.



No. 1919—Jointed Monkey

Pattern cut in one size only. Quantity of material required, three eighths of a yard of thirty-six-inch material, with one eighth of a yard of tan felt for hands, feet and face, and buttons for the eyes. Price of pattern, ten cents. Brown, fluffy flannel or an old piece of fur can be used for the monkey's body and will be very lifelike. A monkey is the kind of animal one reads about in books or sees at the Zoo, but very seldom right at home, sitting next to all the dolls and other animals. This monkey, however, Santa Claus will bring to any little boy who tells mother he would like to have him.

No. 1918—Woolly Lamb

Pattern cut in one size only. Quantity of material required, one fourth of a yard of twenty-two-inch material, a small piece of white kid for the legs and head, and two shoe-buttons for the eyes. Price of pattern, ten cents. A nice white woolly lamb is just the best sort of a playmate for a very small boy, and to have one for a Christmas present would be just the nicest thing imaginable. For this reason mother will surely help Santa Claus get one for him.



No. 1911—Set of Doll's Furniture

This set includes patterns for furniture for a doll's living-room and a doll's bedroom. Altogether there are seven patterns. Each article of furniture is cut in one piece, and the pattern is carefully perforated along the lines on which it is to be folded. Price of this pattern set, ten cents.



In making the furniture, pattern No. 1911, select a stiff paper in different colors. For instance, have the living-room furniture in brown. You can get paper that really looks like brown wood. This same paper can also be bought in light colors which can be used for the bedroom furniture.

The Road to Happiness

[CONTINUED FROM PAGE 21]

That time did not arrive until that lull came which always precedes the departure of the first guests, when by chance he caught Frances alone in the library.

"Sit down and rest a moment," he suggested, and she obeyed gladly, sinking into a big armchair while he occupied its stiff-backed neighbor.

"Hasn't this been a glorious evening?" she sighed ecstatically.

Norman leaned forward in his earnestness. "I can never get over my surprise that you feel so! Frances, what do we really know about each other?"

"Well, upon my word!" The girl sat bolt upright.

"You know what I mean. What are your ideas as to our future—your ideal?"

"You, Norman! You!" She laughed evasively. "Now, are you satisfied?"

"No, dear."

"Well, I can't stop to argue the point. Our guests are waiting." She rose hastily, astonished at his manner, and her amazement increased when he went on obstinately, though his voice was still tender.

"Everyone excuses an engaged couple for slipping away for a moment. All I want is that you should appoint some time soon when we can have a real talk; so that I can tell you all of the happiness I've planned for you, and you can confide to me all the little problems—"

The girl rose again, irritated at being detained against her will. He had never crossed her in anything before.

"I've nothing to confide," she said pettishly. "When do you suppose I had time to think of problems? I've had all I could do to keep my engagements and to plan for the wedding!"

"And after that?" She had never heard that grave, authoritative note in his voice before, and it frightened and irritated her afresh.

"We'll get along like everybody else, I suppose!" she answered flippantly.

The lines on Norman's face seemed to sink more deeply; his gravity of expression was almost solemn.

"Don't look at me like that!" the girl commanded, her voice shaking and her eyes filling with tears. "I didn't think you could be so horrid!"

Just then Mrs. Taylor, in search of her daughter, stepped into the library; then, at sight of her, stopped short in amazement, demanding unsteadily:

"What in the world is wrong?"

"Nothing," Norman replied, "only Frances seems to resent my planning to have a little serious conversation with her."

"Why shouldn't I, when I've a thousand important things to attend to?"

"Sh! Sh!" Mrs. Taylor implored, going to her daughter hastily, and laying a repressive hand on her shoulder. "You're a little impatient, dear, because you're nervous and tired." Her eyes keen with anxiety, she turned to Norman and questioned, "Don't you think it's a trifle inconsiderate to expect anything of her now?"

"You're getting a very jewel of a little wife; and if you don't realize this instant that a girl would be more than human not to be engrossed in her wedding plans, I'll say you don't deserve her." She noted that the shade on his face lifted a little, and went on with more assurance.

"It would give me real pleasure to scold you both for daring to have a lover's quarrel at such an absurd time, but I'm too much occupied. Norman, you go in to our guests, and, Frances, dry your eyes this instant, you foolish child!"

Norman faced about silently, as Frances called to him with an April smile, her good humor returning. "Please, don't look like such a crosspatch."

He hesitated at the doorway, as if he wished to come back, but merely said a little contritely, "Perhaps I am one," before he left the room.

Mrs. Taylor breathed a sigh of relief.

"You have less tact than any girl I ever saw!" she declared sharply. "Heaven knows how you're going to get along after you're married, if you don't learn how to manage a man a little more cleverly."

"I don't like tact!" Frances flared rebelliously, her native frankness recoiling at the suggestion of duplicity. "I say just what I think! I was horrid to Norman, and I'm going to tell him so. He can see me to-morrow afternoon, but I just won't let him be so serious!"

Suddenly she seemed struck by the unusual anxiety on her mother's face. "Don't worry," she laughed gently, for her petulant fits of anger never lasted long. "I'll make the peace."

"He's desperately in love with you now," Mrs. Taylor rejoined a little irrelevantly, but with very real earnestness. "See that you keep him that way."

Chapter III.

TRUE to her word, Frances won Norman back to smiles before he went home, and promised to see him alone the next afternoon at four.

Norman felt almost apologetic when he appeared at the appointed hour. He had startled her the evening before, he told himself remorsefully.

Presently he heard Frances's step on the stairs, and in a moment she was dropping her muff on its silver chain to hold out both hands to him.

"Have you just come in?" he questioned, greeting her.

"No, I must go out in a little while."

"Why, Frances!" All of his pleasant reflections suddenly vanished.

"Now, Norman dear, don't rage." Her tone was light and unabashed. "Madame Estelle, my dressmaker, you know, telephoned me most unexpectedly that I had to come this afternoon if I wanted my new gown for Amy's dinner. As it is, I put her off until five o'clock, the last possible moment. You must be reasonable!" Evidently she had no idea that she was really offending him.

"Don't you think it is you who ought to be reasonable?" he asked a little grimly.

No one had ever attempted to call Frances to account for her thoughtless actions. Now, she flushed a little angrily at his reproving tone.

"I am. We'll have all our lives to talk in, and Amy's dinner is to-morrow."

"Please break your engagement, Frances. I was serious last night in my desire to talk to you."

"You are always serious!" she pouted. "Be a little foolish with me for a change. We'll be sober married folk soon enough, and a gay engaged couple only for one little month! Come, walk to the dressmaker's with me!" She put all of her witchery into her manner in her effort to placate him.

Norman longed to yield, but his sense of right rebelled.

"No, dear," he answered reluctantly. "You will get busier every day, and the 'right time' for our talk will never come, and every word you have said has shown me more clearly how much we need to know each other."

"Well, I for one haven't concealed anything about myself!" she flared, angered by what she considered his obstinacy. "There are no 'hidden depths' I haven't shown you. I'm just what I seem!"

"Frances, you're excited!" His patience was wearing thin.

"I should think I am. Who wouldn't be to be lectured and preached at?"

Suddenly the man rose. "Perhaps it hasn't occurred to you," he said in painful resentment, "that our engagement means more than being entertained, getting a trousseau and receiving presents. To me it means a pledge to prepare ourselves for our life together. I am giving you all of my love, all of my devotion, my tenderest thoughts. Don't you think it is my right to know what I'm getting in return?"

"Of course!" The girl's eyes filled with tears; but the vague feeling of guilt he inspired in her only added to her irritation. "But I can't see that you are proving all you say about your devotion when you deliberately annoy me," she blundered on. "Just confess that you are inconsiderate to try and detain me now, and I'll kiss and make up."

There was a heavy silence in the room while Frances waited for his answer. It was well to show him, she decided, that she was not a child to be ordered about, but a woman with a mind of her own.

On his side, Norman was wondering dully how to awaken the latent character which he instinctively felt lay beneath her frivolousness.

Finally he spoke, and perhaps if the girl had seen the appeal in his face and the painful quivering of his lips it would have changed their lives; but as it was she kept her eyes obstinately fixed on the rug as he said:

"I must insist on having a talk with you now."

"And I must refuse," she answered, and then their eyes met, shining with anger.

"Then you don't really care for me!" The words seemed wrong from him.

"I don't believe I do, when you act like this!" she retorted crisply, "and so, as you're not satisfied with me either, perhaps we had better end our engagement!" Not one of her words were meant. She was simply endeavoring to make him more humble, to "bring him to his knees." But he in his present mood was intensely literal. Each reflected the atmosphere in which they lived. In his world, everyone treated an engagement with profound respect, in hers, people played with everything.

Norman walked to the door without a word. Whatever he was suffering, he made no sign.

Suddenly Frances felt terrified. "Norman," she cried, "I—"

"Don't try to explain." His words were slow and measured. "You think 'that perhaps we had better break our engagement.' That's what you said lightly, without a quiver. It explains enough! Your pretty ways and caressing words can't deceive me any more. I know you now—and that's what I came for after all!"

Blindly he went out, while Frances sat stunned. She had never seen a strong man in torment because of her. Slowly she was oppressed by a terrible sense of responsibility; she who, her mother boasted, had never had a care or responsibility in all her life.

Surely she had done nothing to deserve Norman's tirade. The tears began rolling down her cheeks in self-pity. Gradually,

however, her sense of injury and anger died out, and her tears changed into sobs as she realized that she could bring no accusations except against herself.

She did not know it, but she had only fallen the victim of her environment. She had never known the real things, the big things, in life; she had never been taught the sacredness of her young womanhood. Now, for the first time, she was being held responsible for her acts; she was being forced to think. Her mind was in a turmoil. Only three facts stood out clearly: she had broken her engagement, Norman had gone, and it had all been her fault. It was the turning-point; native goodness struggling with false environment.

Very pale and tired, she finally emerged from her self-upbraiding. Slowly she walked to her mirror to arrange her disheveled hair, but almost instantly her eyes fell on her string of pearls, the pearls Norman had given her. For the first time they failed to give her a thrill of pleasure, and suddenly she seemed to see Carolina Sanford, with her wise, keen eyes, looking down at her and saying, "You will obtain happiness, not by having lovely things, but by being lovely; not by getting, but by giving." How true those words were! For a few moments she reflected, then, every vestige of false pride vanquished, she smiled, not childishly, but with true womanly sweetness, and confided to her image: "I'm going to send for Norman, and he'll find a better Frances if he'll only come!"

Suddenly the clock struck six. The dressmaker's engagement had not been kept. After all, she had had her serious hour—but alone!

[TO BE CONTINUED]

Little Wedges

By Alice M. Ashton

THE sleigh-load of young people sat exposed to the biting wind for ten minutes while the young lady on the porch was deciding not to go! Next day one of them heard a lady ask her if she went on the straw-ride.

"No," she replied, "but they came for me, and coaxed me for fifteen minutes to go with them!"

Perhaps this was not exactly an untruth. "My room is furnished in pink and white," said one girl to another, whose room, while comfortable, was made up of a varied collection of furniture and colors. When the other girl had an unexpected opportunity of seeing the pink-and-white room, she found that, while there were a few pink accessories, the pink color-scheme was lacking entirely.

When an enjoyable party was under discussion, a girl who had not been present said, "I did not care about going. Fred came over, but I had a dreadful headache."

The fact: were just as she stated them, but her small brother declared, "Uh! You did not get invited, and you know it!"

A generous-minded woman says, "Too many girls look through rose-colored glasses; their vision would be much clearer if they would let in the white light of day."

Flowers for the Table

By C. J.

YOU are not only thinking what you are going to eat on Thanksgiving Day, but you are also thinking of the looks of the table which is to be spread for the feast. The flowers are the first thing to be considered. The chrysanthemum is, naturally, the first choice. It seems as if that flower were becoming as identified with Thanksgiving as the turkey or the cranberries. If you do not live near a florist and feel that you would have to have chrysanthemums, put on your table a bunch of the tiny red or brown ones that come in late fall and defy the frost so successfully. Don't mass them in a bunch as you would a larger flower, but cut the stems short and fill a low, flat bowl or fern-dish with them. Make a border of tinted autumn leaves about the outside edge, and you will have a centerpiece that will not cause you to regret the absence of the flaunting yellow mop of the highly cultivated flower. If your fern-dish is of brass or copper, the effect will be still more attractive.

Perhaps you live where cranberries grow. Try arranging a centerpiece in the same fashion, using the cranberries on their stiff brown stems and tiny bright-green leaves. You will soon cease depending on the florist and find the woods, fields and house garden ready to supply the table with all sorts of beautiful things.

There is no need to decorate further. The crisp, brown turkey, crimson cranberries, glistening white celery and golden pumpkin pies will furnish color-schemes sufficiently lovely and, moreover, good enough to eat.

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Over 50 pages of our General Winter Catalog are devoted to Christmas suggestions. Ask for that, too.

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JOHN WANAMAKER, New York

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COUSIN SALLY'S DEPARTMENT

For Our Girls and Boys

A Thanksgiving Greeting to All of You!



A Geographical Puzzle

By Isolene Knox Mills

HERE's a puzzle for the boys and girls who like geography. The answer to the first sentence is James Green (the James River and the Green Mountains). Next issue, Cousin Sally will print the other answers.

A small boy named (a river in Virginia and mountains in Vermont) thought one day he would take a ride, so he called the (river in Brazil) who worked for his father to get his (islands north of Scotland) pony. He used neither bridle nor saddle, so he held on by its (one of the states). On his ride he met a little boy that he knew, named (a lake in New York and mountains in New Hampshire), and his little sister, named (one of the original thirteen states), who were going to the river to catch (river in Idaho). The little girl wore a (sea east of China) dress, and on her head she wore a (mountain in Oregon) which was (river between Texas and Oklahoma) in color. She wanted to wear her (city of Italy) hat, but her mother objected, because she thought the sky looked (lake in southern Canada).

Just before they reached the river a (river in Washington) crawled out from some bushes at the roadside. The little girl was filled with (cape in North Carolina), and she screamed and ran, but stumbled on a (capital of one of the states) and fell to the ground. The boys bravely attacked and killed the intruder. On their way they saw a flock of wild (country in Europe) fly by.

After they had fished a while and had had some luck, they grew hungry and looked about for a place to eat their lunch. They saw a small hut near-by, and thought they would (city in China) and see if it would be all right to go in and eat their lunch there. It looked clean, so they went in, spread their eatables on a (mountain in Cape Colony) which they found there. They had some (islands of the Pacific) which they had bought from a (mountain in Washington) and one of the boys had an (river in Africa) in his pocket which he divided, generously giving the little girl the largest piece. Their mother had put a bottle of (river in Montana) in their basket, but they discovered that the (city of Ireland) had come out and the contents had all leaked out. They made a small fire and fried the fish they had caught in (country of Europe) which they had brought with them, and sprinkled over it (river in Kentucky).

The rest of the day flew rapidly by, and after a while they heard their mother blow a (cape of South America), and they gathered up their belongings and obeyed the call.

Hidden-Bird Puzzle

HERE are some birds carefully hidden away. There are ten sentences, and in each one of them the name of a bird is concealed. Next issue Cousin Sally will print the answers for her readers. The answer to the first is "swallow" (cows wallowed). Now guess the others:

1. The cows wallowed in the swamp.
2. Did you see Eric at Bird's store?
3. The era I like is that of the Middle Age.
4. We must watch Mildred starting for school.
5. The party goes to Wheeling next Saturday.
6. The bill for stoves and pipe reached a large sum.
7. He can sing, whistle, warble, read or orate.
8. They are taking birds to the menagerie to-day.
9. I think Edith awkward and uncouth.
10. James has the lead over Alexander.

Cousin Sally's Busy Bees

THIS is the name of a new Cousin Sally Club. As you can guess from its name, there is not a drone in the hive. Cousin Sally is a sort of Queen Bee, for she directs the other Bees.

Just now the Busy Bees are buzzing as hard as they can buzz. Do you know why? Shh! Christmas is coming, coming, coming, and each little Bee wants to make a lot of presents before the Great Day is here!

Cousin Sally has a new plan so that any boy or girl who joins the Busy Bees can get as many Christmas presents as he or she wants—and all without spending a penny!

If you could see Cousin Sally's cupboard this morning! It is crammed with good things for industrious little Busy Bees. Great packages, fat, bulging bundles—you can put in your hand and pull out all kinds of plums—dolls, sleds, paint-boxes, tags, books, jewelry, and so on and on.

Do you want to be a Busy Bee and get some of these fine things in Cousin Sally's cupboard? Then write her at once, and she will tell you all about it.



The Funniest Thanksgiving

By Alice M. Ashton

Illustrated by Edward L. Chase



BOBBY curled his feet up in the big old armchair, and thought about his secret as he looked into the flames dancing up the black chimney. The chimney looked as big as the front hall at home, and it moaned in a queer, lonesome way as the chimney at home never did.

Bobby had come for the first time in his life to spend Thanksgiving at grandpa's farm, and the secret was that Bobby was afraid!

As his grandfather had driven under the spreading limbs of an old oak tree, he had ducked down as far as possible and cuddled up closer to grandma.

"That oak limb won't hurt you; it's three feet above that yaller head of yours," grandpa had said laughingly.

And Bobby didn't dare to tell him of a picture in his animal-book of just such a tree. On a spreading limb was a huge serpent, slowly swinging an ugly head, and waiting for his prey.

"Oh, I hope they don't know it," thought the little boy, trying to swallow the lump in his throat. "They would think it was funny and would laugh!"

"Bobby, Bobby!" called a voice from the pantry behind his chair.

Bobby tiptoed to the door cautiously. The room was light, for the fire shone in, and grandma had left a candle burning. A great feathered creature sat on the shelf at the opposite end of the long, narrow room, glaring at him.

"Wha—what are you?" stammered Bobby, his knees shaking.

"I'm the turkey for the big dinner to-morrow," said the same fretful voice.

"Oh, no, you're not!" cried the little boy. "I've seen lots of turkeys. They are great white things that hang by their feet in the shop-windows."

"That may be the way city turkeys look," cried the bird, gobbling shrilly, "but it is not the way we look in the country. Here we are king of the poultry-yard, and have beautiful bronze coats and red combs. We are prized very highly—hang by our feet, indeed!"

"Don't you hate to be killed?" questioned Bobby, respectfully.

"Indeed no, I shall be the most important part of the dinner, and my picture will be in all the magazines and papers! I never cared to be useless," looking severely at the small boy in the doorway. "Bravery has always been my motto."

"Ha! Ha!" laughed a cheery voice, and Bobby turned to see a round, jolly face peering from a dusky corner. "I'm the pumpkin, Master Bobby."

"But I supposed pumpkins lived in tin cans and came from the grocery," he said, perplexed.

"Maybe some of them do. But I grew

in the corn-field, with the sun shining and the birds singing in the daytime, and the stars twinkling at night. It's a fine place, the corn-field."

"Weren't you afraid," breathed Bobby, "where it was so big and lonesome and far away?"

"But it wasn't lonesome with the winds and the crickets, and the nest of young foxes just over the fence. The corn, who is mostly ears, anyway, listened whenever I cared to talk. Now I'm to be made into a fine pie."

"Is that all you're good for?" questioned Bobby.

"Did you never hear of Jack-o'-lanterns, Master Bobby?" asked the pumpkin.

"Why, yes, they are made of pasteboard, and cost five cents at the toy-store!"

"Hear the boy! Let me tell you," very proudly, "that the finest Jack-o'-lanterns in the world are made of a pumpkin with a tall candle inside!"

"Oh," breathed Bobby, meekly.

The yellow cream in the stone pitcher stirred gently.

"You must not blame the boy," she said in a soft, sweet voice. "He has never been in the country before. And you must not make so much noise, or you will waken all these eggs in the basket beside me. They will have a busy day to-morrow, poor dears."

Bobby, peeping into the basket, beheld the childish, sleeping faces cuddled close together. "I can see no disgrace in being timid," sighed the carrot, shaking her fluffy head. "I always prefer someone near me."

"Well, I'm glad to say I'm no 'fraid-cat," sniffed the onion primly. "We have always been a very strong-minded family!"

"Oh, oh!" laughed some blushing apples, rolling about in their basket in great glee.

"Do you always all talk like this?" asked Bobby in surprise.

"Indeed no, but you see we guessed your secret, Bobby. The country is the safest place in the world if there is no light at night but the stars and moon. And it's the jolliest place in the world, too. We wanted you to understand, Bobby."

Suddenly all these mysterious people closed their eyes drowsily, and the pantry grew dark, so Bobby curled up in the big armchair, and closed his eyes, too.

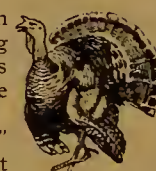
When he opened them just a moment after, the sun was shining in the windows, and he was covered snugly in a bigger bed than he had ever seen until he came to the country.

Bobby scrambled into his clothes, and ran down to grandfather in the back yard.

"Grandpa," he shouted, "may I feed the chickens? And will you make me a real Jack-o'-lantern?"

Grandpa's eyes twinkled.

"You scoot into the house," he said, "and ask grandma for a candle."



The Ghost in the East Room

By Anne Hetherington

"LET me sleep in the east room to-night, Aunt Carrie! Please do!" pleaded Harold. "I am the oldest, and if anybody is to see the ghost, I ought to have the first chance."

"But I am not willing to have any of my little boys frightened," said his aunt.

Then they all coaxed so persistently that she gave her consent. Harold was to sleep in the east room and would be able to tell his younger brothers all about the ghost if he saw it.

This was the first time the three city boys had visited their aunt on her large farm in Pennsylvania, and they were having a fine time.

The old rambling farmhouse, with its huge cellar, and an attic that afforded unlimited space for play, were a joy to these city-bred boys.

Then came a rainy day when everybody stayed indoors. After supper Aunt Carrie offered to tell stories. At last she told of the ghost that was supposed to walk through the east room at twelve o'clock every night. She had never taken any particular interest in this ghost, as her rooms were in the west wing, but the boys were all very anxious to investigate, and learn for themselves if there really were a ghost.

"You see, we live in a flat in New York, and no one ever heard of a real ghost walking through the small rooms in a city flat," said Harold. "It would be such great sport to be able to tell all the boys on our block that I really saw a ghost down here."

There were three sleeping-rooms in the east wing, but only one was called the east room. It was situated in the corner and had doors at each side opening into the other two rooms, but did not connect with the hall. The boys had such a jolly time getting ready for bed.

Harold saw that William and George were comfortably tucked in in the next room and then sat down to plan just what he would do about this ghost. He decided to go to bed and put out the light. Then, too, he was not at all sleepy and could easily lie awake until twelve o'clock. It was long past eleven now.

Suited action to thought, he went to bed, but kept his eyes wide open.

My! how still it was in the country. At home he could hear the cars passing and wagons rattling through the streets at all hours of the night.

He wondered if the boys were asleep and called softly to them, but received no answer. "Nice, brave brothers," said he softly. "I like the way they stayed awake to help me if I needed them, or to see the ghost if I called."

Then he grew tired, very tired, and presently the clock chimed quarter of twelve. Harold really did intend to stay there with his eyes fixed intently on the door, watching for the ghost, but somehow it was so still and lonely and he was so very tired that he fell asleep.

He woke with a start. Something strange must have happened to awaken him. What could it have been? He sat up in bed and looked around the room. Everything seemed to be just the same as it did when he went to sleep hours and hours ago.

Suddenly there was a sharp report, like a revolver shot. It came from the cupboard. Then a long, hissing sound and a crash as if somebody had fallen. Thoroughly frightened, Harold cried out for help.

Two little sleepy heads were cautiously thrust through the doorway which led to the younger boys' bedroom. Aunt Carrie came quickly through the other room with a lamp in her hand. Its bright light was welcomed heartily by the boys, who were too afraid to light their own lamp, but it revealed a stream of red which trickled out from under the cupboard door.

"What is the matter, Harold?" asked Aunt Carrie.

"Ghosts," cried Harold. "Ghosts," echoed two very frightened voices from the opposite doorway.

"Somebody has been killed," whispered Harold in an awed tone. "Look at the blood at the cupboard door!"

"Oh dear," cried Aunt Carrie, "my catsup has worked." She threw open the door and revealed two glass jars of tomato catsup that had fallen on the floor, the liquid running over and coloring it a deep red.

That explained all of the queer noises, but the experience had so alarmed the boys that they decided to spend the rest of the night in another bedroom as far as possible from the "ghost chamber." Never, never again would they want to sleep in the east room with the hope of seeing a real ghost.

THE GIFT CLUB

Jean West

Secretary



SPLENDID things have been happening in The Gift Club during the past month! In the first place, hundreds of girls have joined the Club since I first told our FARM AND FIRESIDE readers about it, and there are more coming in every day. I expect that before Christmas The Gift Club will have a membership of over a thousand girls and women.

Perhaps you did not see my article in the October 25th issue of FARM AND FIRESIDE. In that case I want to say just a few words about the purpose of the Club. The editors of our paper have organized the Club just especially to make it possible for you farm girls and women to get for yourselves all the many dainty little luxuries that you have longed for, and that always seemed just out of reach. And the best part of it is, these things won't cost you a single penny! They will be a present to you from The Gift Club!

There is no age limit in The Gift Club. Our membership list is very elastic, and can be made to include you, no matter what your age.

There are absolutely no dues in connection with the Club. It costs you nothing to join.

On the other hand, the benefits that come to you when you have joined seem almost marvelous. For instance, there is my little sixteen-year-old friend, Minnie J., who has been a Gift Club girl just two weeks and who in that time has received from the club a beautiful picture for framing, a silver toilet-set and a beautiful gold bracelet—and all in fourteen days!

Here is a letter that I've just received from a married member of The Gift Club who lives in Minnesota:

I received the Nottingham lace curtains to-day. They are lovely. I had no idea they would be so nice. When Helen came home from school, I got her to help me put them up. If all the gifts that you have for us, Miss West, are as good as these curtains, you may count me a member for years to come.

And here is a letter from a girl who teaches school in Pike County, Pennsylvania. She has just received one of our gifts. Listen to what she says about it:

DEAR JEAN WEST—

I cannot thank you enough for sending me that beautiful landbag. It is so big and roomy and such a convenience to carry all my papers to school. I'm going to work for the fountain-pen next. I surely do need it, and your Gift Club pen seems to be just the very one I want. The Gift Club is certainly a splendid thing for girls, and I'm so glad you started it and gave me a chance to join.

I do not want to fill all my space with letters, because I have too much to say to you myself, but I did want you to see how enthusiastically our FARM AND FIRESIDE girls have taken to the Club's plans. We all have jolly times together! The letters, how they do fly back and forth between us!

"What are the Club's plans?" I hear you ask. Ah, but that's a secret, a jolly secret, and one that we Club girls are anxious to keep. But if you want to know how you can get all sorts of useful and valuable presents, both for yourself and your home, write me, and I'll whisper the secret—on paper—to you.

One girl wrote me not long ago and asked if there were magic in the Club that it was possible for any girl to get almost anything in the world that she desired. Now she knows our secret and she is enthusiastically practicing the "magic." Result: She has received a silver manicure-set from the Club, and to-day I am sending off to her the daintiest gold locket and chain that you ever saw!

A Christmas Suggestion

Just let me sound a note of warning! Christmas is only four weeks off. How about your Christmas presents? Are they all made or planned for? If so, you are very fortunate. But I'm sure there must

be two or three, or perhaps half a dozen, that have "lagged" along. Oh, I know exactly how it is. And that is why I'm so eager to help you.

Now here is the Club's plan to help you with your Christmas gifts: I have arranged with a man in New York City, who makes all kinds of embroidery, to prepare for us a set of embroidery patterns which will include just the most charming designs for holiday gifts that you can imagine. There will be perforated patterns for a shirt-waist, a lingerie hat, belt, collar, jabot, doilies, a skirt panel, baby's cap, shoes, and so forth, and a complete alphabet. With these perforated patterns there will go a complete "stamping outfit" and full directions for marking the designs. And—this is the best of all—each of these art embroidery sets will include a dainty corset-cover design stamped on fine nainsook and a beautiful centerpiece stamped on the best quality of pure Irish linen!

There now, don't you like our plan to help you solve your Christmas problems? Each and every one of these designs would work out into the most attractive of Christmas gifts. And I know, too, that your relatives and friends would rather have something that you made with your own hands than anything that you could buy. Another thing: think of the saving in expense! It will be heaps of fun to spend these late fall afternoons and evenings working on all your dainty Christmas remembrances. Perhaps you would care to share some of your patterns with a friend. There will be more than enough

for your own use. I shall think of you sitting at the sunny window of the living-room embroidering the centerpiece that I have sent you.

Remember that the embroidery outfit will not cost you one single penny. Neither will any of the other gifts that I have mentioned. There are many more gifts, hundreds of them, that I have not room to tell you about. But if you want to

know how you can claim this remarkable embroidery outfit, and if you want to hear all about the other wonderful gifts that I have for you, just send me a little note, or a line on a postal card will do. Remember, the club is ready to help you in every way it can.

The postman has just come and left a heap of letters on my desk—letters from farm girls all over the country who have discovered that The Gift Club offers a way for them to get many charming things for themselves and their homes without spending a penny. Here's one:

DEAR MISS WEST—

I'm so glad that The Gift Club has been started. Of course, I do not know what work you want me to do, but your article in FARM AND FIRESIDE sounded so jolly and nice that I know I shall like the work, whatever it is. I particularly want a vacuum cleaner. Can I earn it in the Club?

I must hurry and answer that letter and tell this to-be member of The Gift Club that, of course, she can get a vacuum cleaner—and almost anything else that she wants. And it's just as easy as can be.

And here's a letter from a girl who wants a pair of ice-skates, and another who wants a muff, and there are dozens who want jewelry and neckwear and all sorts of "frilly" things. Well, here they are in The Gift Club for you, girls! All the gifts you want, and more, too.

Do write me a line to-night, and tell me that you are interested. I shall be only too happy to answer immediately and tell you our Club plans.

Jean West

Secretary, The Gift Club,
FARM AND FIRESIDE, Springfield, Ohio.

Big Christmas Surprise Box

For Farm and Fireside Readers

THE publishers of FARM AND FIRESIDE have a genuine treat in store for you. We wish to present every reader of FARM AND FIRESIDE with one of our beautiful Christmas Surprise Boxes. Each Surprise Box contains a beautiful assortment of exquisite articles that appeal especially at this season of the year. Every subscriber who orders within the next twenty days will be supplied with one of these unusual and varied Surprise Assortments.

The illustration below can't begin to do justice to this Surprise Box Collection. This is the handsomest Christmas gift ever provided for FARM AND FIRESIDE subscribers.

100 Different Articles in a Beautiful Box



What You Get

Dainty 1912 Calendar

THIS pretty and artistic 1912 panel Calendar would in itself constitute an exceedingly nice Christmas Gift. This Calendar is in panel shape, 16 inches long and 4 inches wide. It is printed in ten colors. The picture on this Calendar represents a winter scene which we think is especially good and is further brightened and enlivened by numerous appropriate quotations. The whole Calendar is exceedingly dainty and unique and just the right kind to adorn the walls of your parlor or living-room. This Calendar is the work of one of the very best artists in this country, and you surely want it in your home during 1912.

Handsome Christmas and New Year Post-Cards

THE Collection of Christmas and New Year Post-Cards contained in your Surprise Box is absolutely unrivaled. These are without doubt the handsomest Christmas and New Year's cards that we have ever been able to obtain. There will be 25 such Post-

Cards in each Surprise Box Assortment. Nowadays everybody sends Christmas and New Year's cards. It is quite the proper thing to do at this season of the year. The beautiful Post-Cards in this Christmas Surprise Box which we have for you will delight your friends and also fit in admirably with a post-card collection.

You Will Want These for Your Gifts

OUR Christmas Assortment contains just the things you need. Things that will add a touch of the season's festivities to your various gifts. There will be dainty Santa Claus seals, dozens of them, and other seals with jolly Christmas wreaths to stick on the packages at the last minute. There will be handsome tags with Holiday decorations and a space in which to write your name and address. Also charming Christmas cards for you to fill out and enclose with your various presents. Our Christmas Surprise Box will prove a joy and a revelation to every member of the family,—something that will add to the delight and merriment of the season.

THREE GIFT OFFERS

OFFER No. 1. Send \$1.00 to pay for the renewal of your subscription to FARM AND FIRESIDE for three years, 78 numbers, and you will receive our Christmas Surprise Box, all charges prepaid.

OFFER No. 2. Send 50c for one year's subscription to FARM AND FIRESIDE, 26 numbers, and you will receive our Christmas Surprise Box, all charges prepaid.

OFFER No. 3. Send 70c for two different yearly subscriptions to FARM AND FIRESIDE, at 35c each. One of these subscriptions may be your own. You will receive this Big Christmas Surprise Box as a special reward.

THIS OFFER EXPIRES DECEMBER 10th

Last Chance Extended

For Fifteen Days

FARM AND FIRESIDE is now a **Bi-Weekly**. It will be issued hereafter every other Saturday.

Each number is going to be bigger, better and more interesting than any number published in the past. For a short time only we are going to give our old FARM AND FIRESIDE subscribers a last chance to renew their subscriptions at a big reduction from the regular price.

You should take advantage of this remarkable opportunity to get the Bi-Weekly FARM AND FIRESIDE at a bargain price.

All publishers will very shortly be obliged to increase subscription rates. Such bargain prices as listed below will never again be offered. You have a final chance to renew your subscription at the special prices listed below.

These special prices, which are extended to old subscribers only, must be accepted between now and **Dec. 10th**.

Surely you intend to renew your subscription. Then take advantage of this extraordinary offer right away. Our **Special Bargain Offer** makes this the biggest subscription value in the whole publishing world.

You will not want to miss a single issue of FARM AND FIRESIDE during the next year. Our **Big Christmas Number** and other winter issues will have more and better reading than any other journal that comes into the farm home.

It will pay you to renew your subscription for two or four years now. Your new subscription will be entered to begin the issue after your present subscription expires.

Big Departments

Our Big Special Departments will be more practical and interesting than ever before. Every Department is in charge of an authority on that particular line—someone who has had actual and practical experience in that field.

The articles on **Poultry** will be written both from the general farmers' and poultry specialists' standpoints. **The Garden and Orchard** features of the paper will be enlarged. Specialists who are studying soil conditions and prominent farmers who are raising maximum crops will make our **Crops and Soils** Department intensely valuable.

Live-Stock Farming

Farming with live stock is going to receive a whole lot of attention in FARM AND FIRESIDE this year. A single one of our big live-stock articles will be worth a hundred times the subscription price of the paper.

Co-operation—Reducing the unfair profit of the middleman will be the slogan of our next year's work.

The Farmers' Lobby

We are now approaching the **Presidential year**. Our Farmers' Lobby will render more active service this year than ever. We are right on the eve of a most vitally important period in the political history of this country. You cannot afford to miss the **Farmers' Lobby** this year.

Until Dec. 10th

You can obtain FARM AND FIRESIDE at the special old subscribers' prices listed below. Be sure and send your order before December 10th.

Farm and Fireside

Twenty-six big numbers every other Saturday for the next year. More and better reading matter than you can get in any other paper.

Farmers' Lobby

This will be a most important feature during the next year. It will keep you in close touch with the great political changes.

Headwork Shop

The Headwork Shop will contain more new and original ideas than ever. It will be chuck full of practical appliances.

Poultry Profits

The Poultry Department has arranged for a large number of intensely interesting and valuable articles that will mean increased Poultry Profits for our readers.

A Big Novel

The first of a series of big, live, interesting serial stories begins in this issue. You will be the better for reading these splendid stories.

Departments for Women

The various big Departments for Women in FARM AND FIRESIDE will be larger and better than ever this year. These features alone will surpass in excellence similar features in our most popular magazines.

Offer No. 1

Our Bargain Price for all —with Farm and Fireside one year—26 times

35c

Offer No. 2

Our Bargain Price for all —with Farm and Fireside for two years—52 times

50c

Offer No. 3

Our Bargain Price for all —with Farm and Fireside four years—104 times

\$1.00

Fireside Pages

We shall have better stories, better articles, more practical hints and recipes in these pages, and many of them. The **Fashion Designs** will continue to be made by Miss Gould, the greatest fashion authority of America, and will be sensible and up-to-date.

The **Sunday Reading** in FARM AND FIRESIDE is full of strength and good cheer for every reader. Margaret E. Sangster will continue to talk to our readers through the **Home Interests' Club**.

With all these instructive and entertaining features, you simply cannot afford to be without FARM AND FIRESIDE. It will add immeasurably to the instruction and good cheer of every household. Then be sure to accept one of our Last Chance Offers within the next ten days.

"The Road to Happiness"

A new novel by the author of **"Poor Relations"** has been written for FARM AND FIRESIDE. It begins in this issue. You will love the heroine, love to watch her as she trudges along the hard road to happiness, and the hero whose boyhood days were spent on the farm; who is manly, purposeful and sincere. We are surely going to have a treat for you in this story. Be sure to renew your subscription now so that you will be sure not to miss a single chapter of this fine story.

Your Subscription Without Cost

Get two of your neighbors who are not now subscribers to give you 35 cents each for a year's subscription to FARM AND FIRESIDE. Send us the names and 70 cents collected, and we will enter both subscriptions for one year each, and extend your own subscription one full year as a special reward.

MAIL THIS ORDER BLANK TO-DAY

Cash Coupon

This Coupon Entitles the Holder to Obtain

Farm and Fireside, four full years for \$1.00

Farm and Fireside, two full years for 50c

Farm and Fireside, one full year for 35c

Must Be Used Within 15 Days

Editor, Farm and Fireside, Springfield, Ohio

Dear Mr. Editor:—I accept Special Last Chance Offer No. _____
for which find enclosed \$_____

Name _____

R. F. D. } _____
or Street } _____

P. O. _____ State _____

CUT OFF THIS ORDER BLANK, OR WRITE ORDER ON SEPARATE SHEET OF PAPER

The Housewife's Letter-Box

Do You Need Help?

Have you been looking for a special recipe for years? Do you need any information on household matters? And do you meet with little problems in the home that you wish someone would solve for you—someone who has had a little more experience than you? Then, why not make use of YOUR OWN department and ask the questions which have been troubling you? This department has proved that the spirit of helpfulness is abroad in the land, especially among the women of the farm. That our readers have the mutual desire to help one another is evidenced by the large and prompt response we have had to the questions which are printed here monthly. There is no payment made for contributions to these columns. All answers and inquiries should be addressed to "The Housewife's Letter-Box," care of Farm and Fireside, Springfield, Ohio.

If an immediate answer is desired, it will be sent, provided a two-cent stamp is enclosed.

Questions Asked

Will someone please tell me—

How to make beads out of rose-leaves?
Mrs. J. H. H., Ohio.

How to make mango catsup?
Mrs. A. C. P., Indiana.

How to make apple jelly?
S. N., Alabama.

These questions were asked in the issue of October 10th. Can some of you help the questioners?

How the country woman who uses an alcohol or oil stove manages the hot-water supply? Of course, a small quantity of water can be quickly heated, but often a large quantity of water is needed "without malice aforethought." I would like to try an alcohol-stove if the hot-water problem can be satisfactorily solved. SUBSCRIBER, Georgia.

How to remove dried ink-stains from wood, also how to candy citron?
E. K., Pennsylvania.

How to make bread with a glossy finish on the top like bakers' bread?
S. E. J., North Carolina.

Full directions for crocheting a Dutch collar?
Miss D. M., Indiana.

How to make sweet lozenges out of hoarhound, peppermint or other herbs? I would like full directions.
Mrs. R. L. M., California.

Questions Answered

Drop Coconut Cookies, for E. B., Ohio—Two cupfuls of brown sugar, one cupful of butter, three eggs, three cupfuls of flour, one teaspoonful of soda, three fourths of a cupful of shredded cocoanut and one fourth of a cupful of English currants. Flavor with lemon. Drop from teaspoon on buttered tins, and bake in a quick oven.
L. B. F., Kansas.

To Stain a Floor, for Mrs. M. H. P., New York—We gave an excellent and inexpensive method of floor-staining in our Household Department published in the issue of October 25th. Look up your back files, and if you cannot find it, send the editor of this department a two-cent stamp, and it will be forwarded.

How to Make Castile Soap, for Mrs. O. A. B., New York—The real castile soap is made in Spain, from olive-oil. Such soap as is genuine would be expensive as to ingredients. Furthermore, the Spanish manufacturers would have to give you their recipes. So-called "castile soap" is often manufactured from peanut or cotton-seed oils. The oil is used just as the animal fat in ordinary soap-making is used.

Sponge-Cake, for E. K., Pennsylvania—Three eggs beat one minute, one and one-half cupfuls of white sugar beat five minutes, one cupful of flour beat one minute; then add half a cupful of cold water, one cupful of flour, two teaspoonfuls of baking-powder, and beat all together one minute. Bake in a loaf in a quick oven.

Pie-Crust without Milk or Butter, for E. K., Pennsylvania—To every quart of flour, take one heaping tablespoonful of lard, not melted (if too hard to rub up in the flour, warm it), one teaspoonful of salt and two teaspoonfuls of baking-powder, and rub all together well. Knead it with water. Bake in a quick oven. Mrs. M. M. R., Maryland.

Preserved Watermelon-Rind, for Mrs. G. F. B., New York—Pare and cut the rind, and cover with alum-water overnight. In the morning put in a kettle, cover with cold water, let it come to a boil, and boil for about five minutes. Take out of this water, put on in cold water again with some sliced

green ginger, and boil until the melon is tender, but not soft. When the melon is boiled tender, remove it from this water, and make a syrup with this same water and sugar, using eight pounds of sugar to ten pounds of fruit. Boil the sugar and water until it forms a good syrup, and then drop the rind in, and cook at a moderate rate for three and a half to four hours, or until the rind is thoroughly done. Flavor with vanilla or lemon after taking the kettle from the stove. I have found this recipe very satisfactory.
C. W. A., Maryland.

Two Birthday Cakes, for Mrs. J. J. C., Indiana—One cupful of granulated sugar, one-half cupful of melted butter, beaten to a cream, one egg and one scant cupful of milk. Sift two cupfuls of pastry-flour with one round teaspoonful of baking-powder. Beat well with egg-beater, and bake in two layers about twenty minutes.

Filling: Use medium cutter in food-chopper, and grind one-half cupful, each, of raisins and English walnuts; mix powdered sugar and milk with nuts and raisins to make a paste to spread nicely between layers. Ice cake with the following frosting: Mix one teaspoonful of red sugar with one generous tablespoonful of milk, then add enough powdered sugar to make a nice thick icing. Red sugar may be omitted, and pink candies used on top and sides. Candles should be put on cake to add to its beauty.
Mrs. E. L. B., Maine.

White, Dark, Yellow and Red—Two cupfuls of sugar, two thirds of a cupful of butter, whites of four eggs, well beaten, one cupful of milk, two teaspoonfuls of baking-powder and flour for medium stiff dough. Divide into four parts. It is best to have the part that is to be left white a little larger than any of the others; to one of the other three parts add the yolks of the eggs, beaten, to make yellow; to another add melted chocolate, for dark part; to the last one add a little cake-color (red).

Then dip by spoonfuls, alternately, into greased cake-pan, and bake.

The cake may be made either in layers or loaf. If in layers, it can be put together with a boiled custard between. Then ice the top and sides.
N. A., Indiana.

Corn-Starch Loaf-Cake, for E. B., Ohio—One and one-half cupfuls of sugar, one cupful of sweet milk, one cupful of butter, one cupful of corn-starch, two cupfuls of flour, one teaspoonful of soda, two teaspoonfuls of cream of tartar and whites of eight eggs.
L. B. F., Kansas.

Dill Pickles, for Mrs. C. E., Washington—Take good sound cucumbers four or five inches long. Put a layer in a barrel or jar. Then put dill, garlic, horse-radish, or anything that you want to taste in the pickle with alternate layers of cucumbers and dill. Five cents' worth of garlic is enough for a barrel. When the barrel is full, cover with brine made with ten quarts of water to one pound of salt. No grape-leaves are needed.
G. M., Iowa.

Mustard Pickles, for Mrs. C. E., Washington—One quart of small cucumbers cut coarse, one quart of green tomatoes cut coarse, one quart of cabbage chopped fine, one quart of small onions, four quarts of water, one-half pint of coarse salt. Pour over, and let stand twenty-four hours. Then scald all together, and drain.

For the mustard pickle, take one cupful of sugar, one cupful of flour, six tablespoonfuls of mustard and one tablespoonful of turmeric powder made into a paste with cold vinegar. Pour this over the pickles, let boil up, and can. Will keep any length of time.
Mrs. F. C., California.

EDITOR'S NOTE—Other answers have been received from Mrs. J. E. C., Connecticut; Mrs. O. A. W., New York, and Mrs. R. P., New York. The editor of the Housewife's Letter-Box extends her thanks to them for their kindness.

Aunt Peggy's Forum

By Harriet Whitney Durbin

AUNT PEGGY'S kitchen is her forum, so to speak, and a dark kitchen is as wrath-exciting to the dear soul as a red tablecloth is to an irritable bull.

"Germs are just like men," she says; "they love darkness when their deeds are evil; and germs' deeds mostly are evil, from what I can pick up. I reckon it's them makes the dish-rag smell when it hangs in a dark corner. If a kitchen's light and sunny as it ought to be, it hasn't got any dark corners, and then the dish-rag'll tell just what kind of a housekeeper's running things. You can talk all you've a mind to, children, but you can't make me believe a home-made dish-rag ain't chock full of original, home-made sin. The woman that owns one hadn't ought to try to get into society nor the church till she gets rid of it for good. You got to let your light shine into the world good and strong, and you want to let a lot of it shine into the kitchen. Why land!" (Aunt Peggy grows a little excited here, and dabs flour-onto her

clean apron) "the kitchen may seem like a mighty dinky little end of a big house, but look what's got to come out of it—vittles for ministers and lawyers and doctors, as well as every-day men that make livings out o' their muscles. How can a preacher tell folks what's right if his own liver is out o' whack 'count of his wife not knowin' how or carin' how to have good home-made bread? How can a lawyer know after he's ett a stack of greasy, half-cooked pancakes for breakfast just how big a criminal a man is? Come to that, mebbly the man mightn't 'a' been a criminal at all if he hadn't got dyspeptic from wrong eatin' and so got into wrong doin'." How's a doctor going to cure other folks when he's so bilious he can't see plain? And how are men going to earn good livings with their stomachs pesterin' 'em?"

Her light bread requiring attention at this point, Aunt Peggy drops her discourse—which I venture to pick up on the fly, and present to the public in general.



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April 16, 1911

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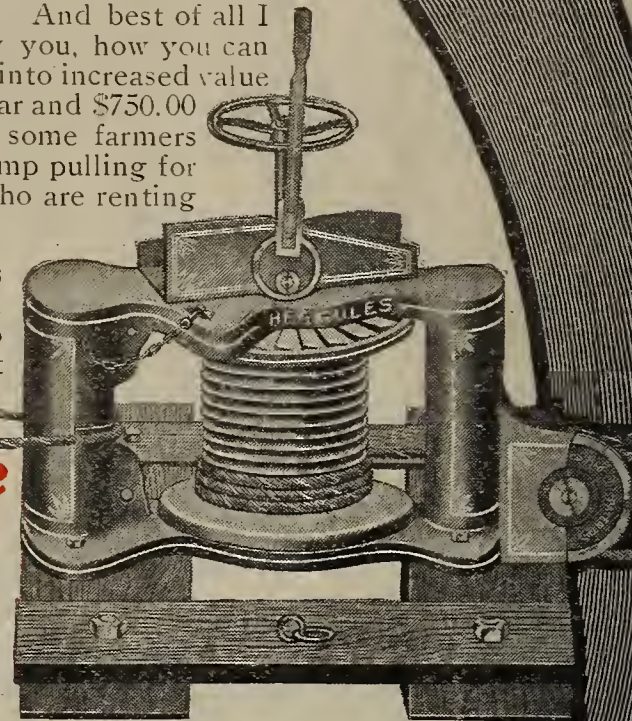
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EVERY OTHER SATURDAY

ESTABLISHED 1877

DECEMBER 9, 1911



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With the Editor

MAKING the National Farm Paper is a job requiring a broad outlook. Perhaps no one knows the United States quite as well as he should. For that matter, no one knows so much about his farm that he can say, "I've mastered this job!" But what I started to say is, that this broad outlook may cause us to overlook things just outside the office door, oblivious of the fact that FARM AND FIRESIDE has a local habitation as well as a name. It, therefore, is a great pleasure to get a most interesting letter from one of our oldest subscribers, Mr. S. S. Miller, whose home I could see from my office window, if it weren't for the high buildings and the factory smoke.

Think of the rushing procession of events in the wonderful years since he reaped with a sickle and the "New York Reaper" was built. Mr. Miller has seen the most marvelous epoch in history. But let him speak:

A RECENT picture of a reaping-hook and succeeding inventions for harvesting grain suggests the time when I was a boy clad in tow linen shirt and trousers. I was not able to take my "through" with the twelve or fifteen reapers, one behind the other, but the memory sticks of how they looked reaping across the field with bowed backs, returning with sickles over their shoulders, binding the grips into sheaves. Here I saw no improvement in the implement—it was still the same that the Orientals used several thousands of years ago. It was my business to have the jug of cool water and whisky-bottle in a fence-corner when they returned. The Washingtonian pledge of total abstinence was much in favor with some farmers. The bringing of ten and four o'clock lunches to the field was also part of my duty—working from sunrise to sunset made a long day. In the '40's the cradle was substituted, and the sickle only used for lodged places. A stalwart six-footer could cut a wide swath, and lay it straight with his buzzard wing. I never had strength to swing a cradle, but, being expert with the hook, the lodged places were left for me, until I could rake after a cradler. The next improvement came in the '50's—a horse-power reaper made at Lagonda, a suburb of Springfield. It was called the New York Reaper. The six-foot sickle worked back and forth in the slot of cast-iron guards which were fastened to the wooden cross-bar with screws. In a frame, at the rear of the platform, a stout boy or man stood to shove off the grain.

My father bought one, and the whole force of shop-hands came out six miles to see it work. It did well if the grain was dry and stood up. If moderately heavy, it took five binders, so as the machine went around a field, the fifth waited at one corner for his turn to commence. The Marsh Harvester also came from Lagonda. Two hands riding on the platform did the binding. We never used it. In the early '60's William N. Whiteley, born in a cabin a few miles east of Springfield, introduced his self-raker. The one heavy wheel made the rake do the shoving off. The ball hinge admitted of a circular movement, and was under the control of the driver. This machine could also be used for mowing by lowering the sickle-bar. I used it both ways for many years, but it was heavy to handle. Whiteley, the six-foot, boyish-looking inventor, continued his improvements till the Champion Self-Binder gave him a world-wide fame, and his two-wheeled mower placed him in the front rank as an inventor of mowers.

When studying geography in the early '40's, we were told that Indiana and Illinois were frontier states, that the great American Desert occupied a large space on the map, that Missouri consisted of extensive prairies over which roamed numerous buffalo, elk, deer and wild horses. Astoria, Oregon, was inhabited by a few white traders, whom John Jacob Astor had sent there for furs. A picture of San Francisco showed the bay full of sailing vessels and a few indifferent houses on the shore.

Since 1874 the writer has resided on South Limestone Street, on a small farm. It is only about two miles from the FARM AND FIRESIDE printing factory, and, of course, being one of the subscribers, he is interested in its growth. He has often seen, while passing along the street, the cunningly devised machines printing tons of paper to be read by millions from the Atlantic to the Pacific. The able editor, Mr. Quick, assisted by a number of helpers, who have had experience in farming, tell of the nobility of the business and how farmers can raise better crops, with the improved implements now to be had for a reasonable price. The Fireside Department gives many items of interest to the boys and girls, inducing them to be contented with the farm. Mrs. Margaret E. Sangster, the queen of the home-circle writers, fills her columns with her best efforts, clothed in beautiful words, being a model in style and inspiration. Her writing has an elevating influence on the whole family.

The WOMAN'S HOME COMPANION, printed at the same factory, but edited at The Crowell Publishing Company's New York office, has forged to the front, till it numbers hundreds of thousands of subscribers, and millions of readers. It fills scores of cars. The entire home circle is delighted by the appearance of each monthly issue. When an addition can be built and more presses installed, the printing of THE AMERICAN MAGAZINE will be added to that already busy corner which is the pride of Springfield. The Lagonda shop of the early '50's, which sent its entire force to our farm to see the New York Reaper work, has increased till many acres are covered with manufactories for the making of agricultural implements, and recent additions were necessary for its growing business. Thus do tall oaks from little acorns grow.

I REMEMBER, as in a dream, seeing a "hand-rake" reaper at work when I was only four or five years old. Four horses drew the machine, and a man, sitting behind the driver, shoved the "gavels," or unbound sheaves, off, and five men bound them up. Each had his "station" to bind; and a man who could "bind his station" was to the harvest-field of the hand-rake and self-rake reaper days what an "A. B." or "able seaman" is to a ship—a real hand.

I believe this was a "Seymour & Morgan," or perhaps a "Mann," and may have been made here in Springfield. We were devoted to the Buckeye "dropper," which dropped the sheaves behind the machine, where it had to be bound before another swath could be cut. It always made a beautiful square sheaf. But it took at least four men and a driver to keep things going with a dropper, while the side-delivery self-rake—the Champion, with its flickering comet's tail of rakes, one of which so mysteriously dropped down and did the raking, and the McCormick, with the huge red blade that rose and flashed and descended like Excalibur, King Arthur's resistless sword—drove the dropper out of the market in our neighborhood, largely because one could cut the grain and bind it up afterward, and we were often short-handed.

By the time the struggle came between the self-binder and the Marsh Harvester, I was able to "bind my station"—that is, I could take half what a Marsh Harvester would cut—as it rolled up between the aprons in an endless, remorseless stream of golden grain, with the green weeds, grass and clover in the butts.

One year was memorable. We got a Walter A. Wood binder, not then perfect. It missed about one bundle in ten. We took it off, and spent half a day attaching to the new machine the old Marsh platform.

The grain was heavy, and the lead team of roans were fractious and prone to trot. The sickle-bar of the machine meant for a twine-binder took a foot and a half more swath than did the old Marsh Harvester—which was supposed to give two men all they could handle. There were three of us, binding two rounds and driving one, and we had no mercy on ourselves or the horses. To force a stop was disgrace, and many a time I mounted the driver's seat at the end of two fierce rounds as purple of face and staggered of limb as if the "rounds" had been with Jack Johnson. I have always since hated fractious roan horses with a tendency to trot to farm machinery!

Hubert Quick

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Springfield, Ohio, December 9, 1911

PUBLISHED
BI-WEEKLY

One farmer reports success in killing quack-grass with sweet clover. In view of the fact that the sweet-clover crop, for either pasture, hay, or seed, is almost as valuable as alfalfa, and that it is a great soil-renovator, quack-grass and Canada-thistle victims may well look into the matter.

Watch the Vote on This

SENATOR BOURNE of Oregon has introduced a little bill that will bear watching. Some time this next year this bill will be considered more seriously than it is now. But it will be best to remember it all along. It provides:

That . . . no higher postage rate shall be charged for the transmission of mail entirely within the United States . . . than . . . for the transmission of mail partly within and partly without the United States. . . . The Postmaster General is hereby authorized and required to establish and enforce rules and regulations which will give the people of the United States rights and privileges in the use of the United States mails as liberal as the United States accords to the people of the most favored nation.

It doesn't seem unreasonable, does it, that you should have as good service on your own nation's postal cars and in her own post-offices as that accorded to Japanese, British, Chinese and Russians? And yet that equality is just what the Bourne bill is required to establish. The farms of the United States would have parcels-post service if farmers were as well treated on our own postal routes as we treat foreigners. It is a shameful thing that the postal service from your door to any foreign country should be better than it is to your nearest city or town. And yet such is the case. We carry parcels for the foreigner, and refuse to do it for our own citizens. Your congressman and your senators will have to vote on the Bourne bill, perhaps. Watch, and see how they vote. And maybe it would be well to drop each of them a post-card, telling them that you are watching to see what is done.

Beet-Sugar

OUR friend *The Country Gentleman* suggests that Secretary Wilson is the latest advocate of sugar-beet growing in the United States. While this may be true, it is also true that the Secretary was also one of the earliest. Our contemporary very justly says in commenting on this matter: "To establish sugar-beet growing on a profitable basis is a proposition requiring a good deal more than merely urging farmers to grow more beets."

Quite true! And the difficulty of establishing the industry on a profitable basis, while great, is likely to be vastly less than that of keeping it profitable. Farmers contemplating going into sugar-beets for sugar purposes should study the question as to whether or not the industry can exist without the tariff. We do not believe that it can, though there are well-informed men who do not agree with us. We think that sugar-cane grown in the tropics can drive sugar-beets grown in the United States out of the market, in the absence of a duty.

Therefore, the man who goes into beet-growing engages in an industry, the prosperity of which hangs on legislation. The nation is about to re-examine this whole matter of free sugar. And our guess is that the people, only a few of whom, comparatively, are interested in sugar-growing, or sugar-making, will refuse to tax permanently their food, their fruit canning and preserving.

Our advice to beet-growers and cane-growers is to be on the lookout for another crop.

Cutting Down the Cotton Area

ADVISERS of the southern farmers are prone to urge them to "cut down ruthlessly" the area in cotton, for the purpose of reducing output and increasing price. Of course, the proposition of less cotton means more corn, more hogs, more diversified farming and better rotations, and thus far the advice is good. But our boasted monopoly in cotton-growing is based on the fact that we can grow it more cheaply than can other countries. If we should fail for a few years to plant enough to supply the world's market, we might by the force of the high prices thereby caused greatly stimulate production in India, Africa and South America. We might run up the prices so high that some fine day we should wake up with real competition in the field. Moderate normal profits, on the whole, are best for the cotton industry, as for every other. If, however, by shouting a little too loudly the cotton-area contractionists can keep prices up to this natural and normal altitude they will do a very good thing indeed.



Six Farm Lovers

WE GAZE with astonishment, sometimes, upon the "happy family" in the circus. The canary bird, the cat, the dog, the parrot and the monkey, living together in the same cage, always attract our notice. But, after all, the wonder is, not that they live together so happily, for usually both comfort and happiness seem absent, but that they live together at all. In this picture, however, we see real companionship. One of the great charms of farm life lies in its intimate relations with the dumb family which depend upon us and on whom we depend. The modern farm gives a happy, well-fed life to more animals than ever existed before. We are better than our remote ancestors in our relations with animals, more certainly than in any other respect, perhaps. These boys will be better citizens, and better farmers, because they are gentle enough to be the chums of sheep and cattle. And real gentleness carried into all phases of life would revolutionize the world, and that in this present generation.

Rural Rural Schools

IN OLD Berks County, Pennsylvania, the "truly rural" rural school is coming into its own. Its county superintendent is Mr. E. M. Rapp—another of those who are discovering new possibilities in this once despised office. The slogan of the Berks County schools is "Better Farming and Better Housekeeping." Boys' agricultural and girls' domestic-science clubs are becoming popular. There are corn-growing contests, corn shows, potato-growing competitions, poultry-raising contests, garden contests and girls' competitions in needlework, cooking contests, and the like.

"If every school should be the natural expression of its community," says Mr. Rapp, "then the rural school should express agricultural and country life." To educators with such insight belongs the future of this nation.

Do you receive FARM AND FIRESIDE promptly? We want you to get it by Saturday every other week. Write us and say when FARM AND FIRESIDE reaches you. We want to know.

Norman J. Colman, whose death occurred last month, had the distinction of being the first head of the Department of Agriculture. During Mr. Colman's occupancy of the office of Commissioner of Agriculture the bureau was made a department, and he became a member of the cabinet. He has been succeeded by such men as Rusk, Morton and Wilson, and the Department has grown wonderfully in power and usefulness. Mr. Colman was long a leader of agricultural thought and served his state (Missouri) as member of the legislature and as lieutenant-governor. In 1852 he founded *Colman's Rural World*, and was its editor and proprietor until his death. He was a recognized authority in horse-breeding. Mr. Colman was born May 16, 1827.

Try It on Something Else

WHEN it came to reciprocity, the farmers made themselves felt in Washington. They didn't beat the President, but they really produced an effect. We think they were unduly excited, but that isn't our present point. The lesson lies in the demonstration that when the farmers care to do it, they can cut some figure in Washington. Why can't they get excited on something really basic? The reciprocity treaty, if Canada had endorsed it, would have caused a temporary readjustment, and then things would have been as before. But if the farmers could once get mad by the million, and demand parcels post, we should come out of the fight with conditions really changed for the better. For the first time in our history the 30,000,000 farmers would have means of cheap transportation of package freight, and would thus be on an equality with the town-dwellers to whose doors the express-wagons run. Every farm would be benefited by that, while not one farm in a dozen would have known any difference one way or another from the adoption of reciprocity.

What we need on parcels post is what we had on reciprocity—in the language of Hosea Biglow, "p'ison-mad, pig-headed fightin'." Can't we have a little of it?

A Silo Question

WHEN did you first see a round silo? Of what was it made? When did you first see a round silo of any kind with continuous doors—a row of doors meeting each other—and reinforced door-jamb, with door-jamb braces and with any sort of device for holding the doors in place? By "reinforced" door-jamb is meant strengthened jambs. A company

claims that it has the sole right to build a round silo with any of these devices. Its patent is dated 1899. Did you happen to have seen them in use anywhere prior to twelve years ago? If so, please write to FARM AND FIRESIDE, and tell us about it. Your information may be very important.

Old Settlers' Stories

WE HAVE been greatly interested in the reminiscences of readers of the paper whose lives and memories run back to other and different times. The letter of Mr. Miller of Clark County, Ohio, is one such, a part of which our readers note in this issue. We have in hand another which we hope to publish, which deals with "good old times" in Manitoba. We shall take it in friendly spirit if our readers who are "Old Settlers" will let us read more of the interesting things which only they remember. We may find in some of them bits of life and history which ought not to be allowed to lapse into oblivion. Our readers all wait for interesting things from the "Old Settlers."

The Sunshine Family

By L. L. Klinefelter



ALL through the Great Southwest, that is to say in New Mexico, western Texas, western Oklahoma and western Kansas, there lives a family which we shall call "The Sunshine Family," because it seems to thrive best in that region of health and sunshine which our grandfathers called "The Great American Desert" for the very good reason that they didn't know any better.

Some members of the Sunshine Family, like Old Man Sorghum and his useful relative, Broom Corn, lived in the east for a good many years, but somehow they never amounted to much there. True, everybody said that Old Man Sorghum had a sweet disposition, and was noted for his habit of furnishing molasses for the harmless, necessary flapjack of the breakfast-table.

Broom Corn also was a humble and useful member of the community, and, as the successor of our old friend the hickory broom, performed a worthy though lowly service in helping the good housekeeper in her fight with the powers of Dirt. On the farm, however, both were given the left hand and, if tolerated at all, were pushed back into some out-of-the-way patch of ground that was not supposed to be good for anything else.

Like a great many other folks, both Sorghum and Broom Corn improved their conditions by coming west, and it was a great day for them when they struck the Sunshine Country. And, by the way, Old Man Sorghum did what not a few others have done when they moved into a new country, he changed his name, and now he goes by the name of "Cane." He also changed his line of business. Instead of sweetening flapjacks, he has gone into the stock business, and furnishes feed for vast numbers of horses and cattle in the Sunshine Country, certainly a fine business.

It is the same old Sorghum that was known in the east, but you would hardly know him. Instead of the neglected half-acre out in the back field, Mr. Cane now spreads himself over great fields of fifty to a hundred acres, and the farmer cultivates his acquaintance assiduously. In the same way Broom Corn has spread out into great fields, and rides to market in large trains of freight-cars.

Looking for New Plants

But Uncle Sam has been at work for some years getting other members of the Sunshine Family to locate in the Sunshine Country. Agents of the Department of Agriculture have scoured the world for other plants of the same family. They brought Kafir-corn from South Africa; Milo maize from the Egyptian Sudan; Kowliangs from Eastern Asia; durra, Egyptian millet and others from other parts of the globe, and all of them have found the Sunshine Country very much to their liking and have made themselves right at home.

So there is now a large and interesting family. And right here let me mention the one characteristic trait of the Sunshine Family. When a long dry spell comes, they don't shrivel up and die like corn or other crops under similar conditions. No, they only stop growing. It sometimes happens that a long, hot, dry spell strikes the Sunshine Country, but in such a case the Sunshines go on the principle that "They also serve who only stand and wait."

At all events, they simply wait until the rains come. They don't try to grow, but they don't go back, either. The Sunshine Family has its dish right side up when it rains, and makes up for lost time. That is the family trait that adapts them to southern conditions. By simply standing still and holding their own, the sorghums are able to bridge dry spells that would put any other farm crop out of business.

Now, what are they good for? Well, they are good

to eat. Some of them for both man and beast. All of them are excellent forage plants, and some yield large crops of grain. Broadly speaking, they may be variously classed. Sorghum may be used as forage, mainly in the shape of "cane-hay." With proper cultivation, many tons of excellent forage for horses, cattle and sheep may be grown on an acre, and in the dry climate of the Southwest, with its unfailing breeze, it is easily cured, and so is easily handled.

If desired, one form of sorghum may be made into syrup of fine quality, but its main use is for hay. The others of the Sunshine Family are not sweet and are known as "the grain sorghums," although they all have a high value as forage. This is especially true of Kafir-corn. Milo is considered the surest and most valuable of the grain sorghums.

All the members of the Sunshine Family are sorghums of one kind or another. The durras, the Kowliangs, the Jerusalem corns, the Egyptian millets, all come under the head of non-saccharine sorghums, and are grown both for grain and fodder. But it is not only as a food for live stock that the grain sorghums are valuable. For instance, at any time within the last five years you had made the trip to California over one of the principal transcontinental lines, a line which makes a feature of its excellent dining-car and eating-house service, you would probably have commented upon the delicious pancakes served by that system. Had you investigated the matter, you would have found that the pancakes were made of Kafir-corn flour.

Making a New Flour

In fact, it is quite probable that you have eaten Kafir-corn pancakes at your own home, for who could blame the "harvest miller" for adulterating his fine wheat-flour with a cheaper article of Kafir-corn flour, seeing that the wheat-flour was really improved by the adulteration? But now the Milo has entered the pancake field, and there may be trouble in the hitherto happy Sunshine Family.

Within the present year, a milling firm in the Sunshine Country has installed machinery for making flour from Milo maize, and sent a sack of the new flour, free, to every restaurant in the territory with the request to use it for making pancakes. The result was so satisfactory that the mill already finds itself swamped with orders for the new flour. The "Milo pancake" became all the rage. All of which goes to show that the Sunshine Family is coming into its own.

It is less than twenty years, in fact scarcely more than ten years, since Kafir-corn and Milo maize have been taken up as regular farm crops, and then only for their value as stock-foods, but already their field is widening, and before another ten years they will have to be reckoned with as the Southwest contribution to the world's supply of human food.

But thus far we have been talking only of the high-headed, upstanding members of the Sunshine Family. There is still another, perhaps we should say a humbler, branch of the family, and that lives close to the ground.

As is fitting, the Sunshines make up a great part of every fair that is held in the Southwest, with the result that a county fair is a symposium of all shades of grain.

There are many green things to be seen at fairs everywhere, of course, as we all know, but of all the green things the Sunshine Family is the most delightfully green.

Many Members of the Sunshine Family

Take our old friend, the watermelon, which, notwithstanding its name, reaches its perfection in the heart of the "American Desert" of our grandfathers. A fifty-pound melon is hardly noticed at a fair in the Sunshine Country, being completely eclipsed by watermelons weighing from eighty to one hundred pounds.

And the pie-melons? Did you ever see a pie-melon? Perhaps you did and mistook it for an Alabama Sweet watermelon. Had you tasted it, you would have found a difference, for the pie-melon is almost tasteless. But

in the hands of the skilful housewife, who adds a little vinegar and a lot of "know how," it becomes a work of culinary art that good judges mistake for apple pie. It has a vast and voracious root system, and produces enormously within a few miles of where this is written. Two vines produced a wagon-load of pie-melons last fall, and yet, although an excellent stock-food and a long keeper, everybody makes fun of the pie-melon.

All these products of the Southwest are constantly being improved both by breeding and cultivation. There are certain farm and garden crops especially adapted to the conditions found in the great Sunshine Country of the Southwest, and the greatest of these is the "Sunshine Family."

The Sunshine Family in Nebraska

By C. Bolles

ON our Nebraska farm we had on trial two new varieties (white durra and white Kowliang) and one that was new last season—brown Kowliang. The white durra is a selection, I believe, of the old Jerusalem corn and is an erect-headed plant growing to a height of five to five and one-half feet, instead of four, like the old variety. The white Kowliang (and also the brown) has been grown in the Orient for centuries under circumstances very similar to dry-farming conditions in the Middle West. The white variety has very slender stalks, heads similar to Amber cane and with a slight white of the seed projecting beyond a glume of green, when ripe. In thrashing, however, the husk is taken off, leaving a grain similar to Kafir-corn. This variety grows to a height of about seven feet. The brown Kowliang stands eight feet, heads similar to Milo, with seed that thrash out easily, though they do not shatter in the field when ripe. The brown Kowliang heads weigh three to four ounces. The white durra heads weigh up to four ounces, while the white Kowliang only reach one ounce. However, the last variety is now the earliest sorgho grown.

We had a low rainfall (nine inches) last season and but little moisture until the middle of July this year, at which time the various varieties were irrigated (but the water ran across the rows and artificially wet but one third their length. Twice, also, in August there was an overflow, lasting about twenty minutes each time. Altogether, there were close to fifteen inches of rainfall on these crops. With various insect troubles, coupled with the drought, the rains seemed to do but little good. The crop was planted three pounds per acre (listed) and given good cultivation. Now for results: On the average the brown Kowliang was out-yielded by Amber cane, brown durra and Milo, making twenty-three bushels, while the white durra made slightly over seventeen, and the white Kowliang, an estimated yield of ten. From this we find the brown Kowliang would make eighty bushels per acre, the white Kowliang, thirty-eight, and the white durra, thirty-four. Here the Milo also outyielded the brown Kowliang, running over one hundred bushels. So far as the writer's results go none of these varieties have much forage value, but are excellent fattening products. As human food, they form a change from corn-meal, though the brown Kowliang contains a slight amount of tannin. The other two are fine for porridge and pancakes or bread. We are feeding out a small bunch of hogs on our sorgho grain this fall, and the results are very flattering so far. We find all palatable and greedily eaten except the cane, though they will eat that too. There appears to be a future for the white durra and brown Kowliang in dry farming, though these results are, so far as I can ascertain, much better than other experimenters have obtained. If either one is tried, it should be on a small scale, say one fourth of an acre. In addition to trying out these several varieties, the writer tried planting—on level ground—both white durra and white Kowliang every other row—namely, six feet apart. This was a poor scheme.

Why Did the Drought Hurt?

By Ivar Mattson

THE past season has been a dry one in many places, and the effects of the drought have been numerous and surprising. All kinds of theories are advanced as the cause of successful crop production or failure, whichever the case may be.

Jones failed because he plowed deep, and his neighbor Smith succeeded because he plowed shallow, and Brown always has bad luck, but Mr. Highbrow over here "jes' nat'ly" can't help making good crops, and you can never tell what he is going to do next.

Thus a dry season has come and gone, and many farmers have learned valuable lessons from this year's failures, while others are more bewildered than ever. As there are no two seasons alike, farming operations cannot be carried on exactly the same for a number of years with uniform results. There are some peculiarities of climate and soil everywhere that do not vary much from year to year. So far as these regularities are concerned, a regular plan of farming can be formulated. But to meet the unexpected conditions one cannot plan in advance. In order to be prepared for such emergencies, as a dry season for instance, knowledge of principles is the best preventive of disaster.

A doctor has to study many years before he gets to practise, and when he does hang out his shingle, he does not know what diseases or persons he will have to work with. But he knows the fundamental principles of health and the different diseases and remedies, and after a short examination of the patient the doctor applies his remedies with considerable certainty as to the result.

It is much the same with a farmer. The farmer has one big difficulty, he may be preparing for a dry season, and it turns out unusually wet, or vice versa; consequently his remedies must be such that they will cure the trouble that is apparent and yet do no harm if the trouble shifts off to the other extreme. Therefore, the farmers of the humid country cannot afford to make such preparations for a dry season as will be harmful if plenty of rains come, neither can the farmer of the Great Plain region afford to be careless with his soil moisture when anticipating a wet season which may be delayed a year or two in transit.

Therefore, we will proceed to investigate some well-known remedies for droughts that do not harm in wet seasons. A fertile soil is the best of these, because up

to a certain limit it requires less water to make a pound of dry matter; this insures economical use of water. A fertile soil has the further advantage of producing richer food-stuffs per pound than poor soil. Ample feeding-ground for the roots is essential, wet or dry. Almost all soils, with the exception of the very sandy and those underlaid with gravel, are greatly benefited by either an occasional or constant deep plowing. Most of the poor results from deep plowing can be directly traced to doing the work at the wrong time or when the ground was not in shape, or possibly from both causes.

Deep plowing should always be done as long before putting in the crop as possible. The best condition of the soil for deep plowing (or any other kind) is just moist; neither wet nor dry. Plowing wet on some of the heaviest soils may defeat the very purposes of deep plowing by making the ground harder than ever when it dries. It is much safer to plow the ground too dry than too wet. In the North the best time for deep plowing (eight to eighteen inches) is in the fall, and it should go through the winter without harrowing or

[CONCLUDED ON PAGE 18]

One City Man and a Farm

By E. O. Mueser



Quality Peaches

WORKING over my bench as a silversmith in a shop in New York City, I had long considered the advisability of my breaking away from the cramped existence of shop life. I longed to stand on my own feet, to be independent, to have some problems to work out that should be my own. I thought that farm life would appeal to me. Why should I not become a farmer? It was a short announcement which I chanced to see in a daily paper, to the effect that a new school thirty miles out of New York

offered a short course in agriculture to city men, which finally decided me to make the venture.

Thus it happened that after a year at school and two years more of practical farm and orchard work on well-managed farms in New York State, Connecticut and Massachusetts, and after a six weeks' trip, devoted to a search for a suitable farm, I found this favored spot in New York State, where I have since made my home.

The farm which I had discovered seemed just what I wanted. There were one hundred and twenty-five acres of fair to good land, with a very fine old house in first-class condition and good barns, stables and wagon-house. Though there are even now many farms that can be purchased for less money than it would take to duplicate the buildings, throwing in the land for good measure, yet this farm, I am satisfied, was an especially lucky find. I borrowed the money to pay for the farm, leaving two thousand dollars on mortgage and enough more to buy necessary stock and for a working capital.

The Need for Caution

I was firmly resolved that the farm must make me a living, pay expenses and interest from the start. Ever since that first of April, 1904, I have had my hands full, but it has been mighty interesting. I knew that I would have to go at the various problems which now confronted me with a good deal of caution to insure the success of the undertaking. Looking back, I feel that I have made some progress and so far have come through without any serious blunders, and a gain in experience which I mean to turn to good account in the future.

Furthermore, far from feeling that it was a misfortune that I could not have started free from debt, I have come to believe that my education as a farmer has through necessity been more thorough than it would have been under circumstances more favorable to rapid progress.

When I came here, there was only the old apple-orchard of about one hundred trees, but orcharding was to be my specialty, though I kept this plan to myself. My neighbors were kindly enough inclined, yet, as I found later, they gave me only six to twelve months to become disillusioned. However, I said very little and went to work. It was hard work, too.

The first three years our main reliance was, for a money crop, potatoes, eggs and pork, as well as milk from a small dairy. For three years, too, I had a flock of sheep that paid well, but, as the place was not too well fenced, there was occasional damage to my young trees, so that I dropped the sheep in favor of my orchard. When the orchard began to bear, we disposed of the potatoes, and this year have dropped the pigs also.

The orchard is now the center of our work, though we still have a small herd of cows and our White Leghorns.

The Results Came

Last year we picked and marketed from our first orchard about four thousand baskets of peaches, rather more than half of which were marketed in Georgia carriers. The following summary may be of interest. I worked this out last winter to get at the comparative results for the different varieties which we grow.

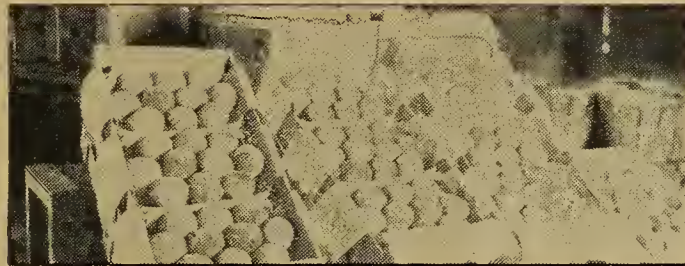
YIELD FOR 1910					
	Baskets	Crates	Net Returns	Net Per Basket	
200 trees Carman ..	583	243	\$ 949.01	\$1.01	
150 trees Champion ..	431	259	702.09	.85	
600 trees Elberta ..	516	802	1,541.44	.90	
200 trees Stevens ..	111	112	299.66	1.09	
130 trees Salway ..	234	45	298.44	.99	
	1,875	1,461	\$3,790.64		

COMPARATIVE RETURNS PER TREE FOR THE FIVE VARIETIES					
Carman	\$3.03	per tree;	\$575.70	per acre	
Champion	4.10	"	779.00	"	
Elberta	2.50	"	490.00	"	
Stevens	1.46	"	275.00	"	
Salway	1.98	"	376.00	"	

Almost all our peaches go to New York City, and to only two men—one being down-town, one in Harlem. We have from the beginning aimed to put up our



Just off the tree



Ready for market

fruit as well as we knew how, and we try to be second to nobody. The result has been a surprise and a satisfaction to me. I knew, of course, that a good pack would recommend itself; I know now from experience that I can get from fifty cents to one dollar over best market quotations on carriers, and our No. 3 grade, which goes in baskets, sells for about top of basket stock as quoted.

That is, for example, Elberta sold in carriers from \$2.25 to \$2.75 for No. 1; \$1.75 to \$2.50 for No. 2, and baskets up to \$1.37½. All of the Carmans and Cham-

pions sold at \$2.00 for second grade, \$2.25 for firsts. It is interesting to note that, while basket stock fluctuated considerably from day to day, crates remained steady, varying seldom more than twenty-five cents.

I visited my commission men one night during business hours, business opening up shortly after midnight, and while the bulk of incoming peaches sold from \$0.75 to \$1.00, few going as high as \$1.75, my own fruit sold that day for \$2.50. I learned the reason was that my peaches were sold each day, as soon as my telegram was received stating nature and quantity of shipment on the way, to the same parties, who insist on getting the same goods, and who were glad to pay a premium to get a pack which they had found to be reliable. I was naturally much pleased and encouraged, and I have as much confidence in my commission man as he has in me. As a result of last year's crop, I was able to pay off my mortgage of two thousand dollars and make a number of improvements on the place, and especially in the house.

This year we had a good crop of Carmans (fourteen hundred baskets) and a partial crop of the other varieties, of which the Elbertas were particularly fine. The total crop is about five hundred baskets less than last year's, but this deficiency is almost made up by the somewhat higher range of prices, especially on the early peaches.

Good Peaches Require Labor

The trees have come through this very trying season in good shape, and they are ready for a bumper crop next year.

I will confess there have also been times when I felt almost discouraged. There were labor difficulties and two years of comparative crop failures, and my farmer neighbors not always sympathetic in their attitude, though I have enjoyed every bit of it, hardships included. I am glad to be on the farm and eager for things to happen. The seven years seem hardly more than so many months.

What I learned in these seven years I could have learned in no other way.

It has not been an easy time, and yet how good it feels to be hard at work and to watch the marvelous processes of nature at close range.

Sometimes I think of the years when I worked in that city shop, and then I know that fortune has been kind to me.

EDITOR'S NOTE—The illustrations with this article were furnished by the author and by Mr. H. G. Parsons. Mr. Mueser contributes frequently to the columns of FARM AND FIRESIDE. He needs no further introduction to our readers than this story gives him.

Campaigning for Good Roads

By E. I. Farrington

CENTRAL Pennsylvania people are proverbially conservative. What was good enough for their fathers is commonly considered good enough for them. That is one of the reasons why there are so many poor roads in Pennsylvania. Once in a while, however, a man comes along with a vision of better things and the courage of his convictions. Such a man is Dr. Donald McCaskey, of East Lampeter Township, not far from the city of Lancaster. Doctor McCaskey was brought up in that section and knows it well, but he has also knocked around the world a good deal, including two years spent in the Philippines, and is thoroughly progressive. He endured the bad roads of East Lampeter for a year or so after locating there, and then he rebelled. He was wearing out four horses and riding through mud or deep dust from morning until night. He sold the horses, and bought an automobile. Then he got along better until the next spring, when he found himself constantly getting stuck in the mud on one particularly bad stretch of road. It was then that he decided to enter upon a good-roads campaign. He had heard of the King road-drag, having listened to a lecture on the subject by Hon. Ralph Gibson of Williamsport, and was overjoyed to learn that he could borrow such a drag from the Lancaster Automobile Club, the members of which were glad to do all they could to promote road betterment in that section of the country.

An Honest Fight Makes People Think

Curiously enough, however, and greatly to the surprise of the doctor, it was soon discovered that the local road supervisors were not altogether in sympathy.

Doctor McCaskey is outspoken and impulsive. Possibly these supervisors had taken offense at something he had said. Perhaps there were deeper reasons, but a

feud immediately began, which continues unabated to this day, although the doctor is himself a member of the board at the present time.

The supervisors asked for an injunction to prevent Doctor McCaskey from continuing the work of dragging the roads, even at his own expense. That aroused the doctor's fighting blood, and the case was taken to the courts, the young physician publishing the proceedings and circulating them all over the township. The decision of the court was that the plaintiff had used the wrong legal procedure, which the doctor considered as practically a victory for himself and the drag.

By that time the entire community was thoroughly aroused, and the matter of good roads was discussed at every cross-roads. The doctor announced himself a candidate for supervisor.

A Unique Campaign

He conducted a very hard campaign, unique in the annals of the community. He got out originally worded posters, which he tacked up in prominent places, and bought a mimeograph with which to print circular letters, which were sent out broadcast. In spite of it all, he was defeated. The voters had not had sufficient time to digest the question. The next year, however, he ran again, and was elected by a fine majority. Then he rolled up his sleeves and went to work, and the result was seen a few weeks ago, when an official inspection of the roads of the township was held—an event which was attended by supervisors from other parts of the county, members of the Lancaster Chamber of Commerce and distinguished visitors from other places. Motor-cars for the party were furnished by the Lancaster Automobile Club, and the roads were thoroughly

inspected, after which the three judges, Col. H. C. Deming of Harrisburg, E. S. Bayard of Pittsburg and Dr. A. E. Leaman of Pequea Township, announced the awards. The prize, a ten-dollar gold piece, was unanimously voted to Mr. Abram L. Landis, foreman of Section 19,

whose section of road was declared to be almost perfect. The change made in the condition of the roads in this section of Lancaster County in the past two years has been remarkable.

What the Work Proves

It illustrates convincingly what can be done with the King road-drag when it is persistently and intelligently used. Two years ago the roads were in a deplorable condition. Now it is a pleasure to drive or motor over them. At first there were only twenty roadmasters employed, but it was soon seen that such were the benefits derived that it would be a wise plan to broaden the scope of the work, so as to embrace the entire township. The result certainly speaks for itself.

There are now thirty-six roadmasters, or foremen, each of whom is in charge of a section and is held responsible for the care and maintenance of that section, and each of whom has a King road-drag, with the use of which he is entirely familiar. The roads have not only been carefully dragged—and experts state that this should be done after every rain—but substantial iron bridges have been erected over the streams, and metal underground [CONCLUDED ON PAGE 15]

BETTER ROADS
SAME TAXES
BUSINESS METHODS & WORK
SPLIT LOG ROAD DRAG
 TALE PATCHES of Stone Piles and RUTS
\$2,000,000 a Year SAVED
 On 10 Roads by the State of Iowa. They use the
 Split Log Drag and have Fine Roadways.
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REMEDY
 Is the Split Log Drag for East Lampeter.
 It shows what can be done for the KING ROADS.
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 it was found in the State of Iowa. It was the
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 These will be a SPLIT LOG DRAG on Exhibition
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 Go to the State and see it work. Help about the One
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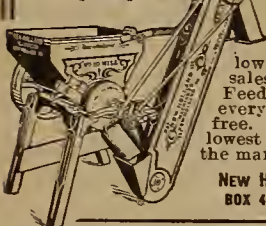
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The Market Outlook

And Other Important Matters Bearing on Live Stock

Fluctuations on the Sheep and Wool Market

TO PREDICT the condition of the sheep-market for the next two months is about as easy as to name the next president of the United States. Over a million more sheep and lambs were received in the six principal western markets by the middle of November, 1911, than during the same period of 1910, and on account of the drought and other causes their quality was, as a rule, vastly inferior. The wonder to me has been that prices have not suffered more than they have. The demand for good stuff has always remained steady, while the variation in the general run has been from ten to seventy-five cents, apparently governed solely by the number and quality of each day's supply. This has been going on for over two months.

The low prices of lambs and yearlings have tempted many, in localities where hay and, latterly, grass have been plentiful, to buy with a view to putting some sort of a finish on them, and with a hope to see a considerable rise in prices by the holidays. My idea is that there will be too much of this stuff sent in to allow of any great improvement; and that no great advance need be hoped for until a high quality of lambs comes out of the yards—possibly not until the middle of April. Finishing feeds will be too high.

The little spurt of a rise in the early part of last month was soon lost; and, as a matter of fact, these little ups and downs are hardly worthy of notice, because, if you have anything in the sheep line to dispose of, in the present state of the trade you are just as likely to catch a good market on one day as on another: the oldest and most experienced salesmen will hardly venture to give advice. Anyone desiring to get these daily fluctuations can find them in any good Chicago daily paper. A crowd of western feeders must realize, and it is impossible to tell when they will be driven by hard necessity to do so. This rushing in of half-finished stock seems to have spread eastward, for early in November the markets there—such, for instance, as Buffalo—began to be overloaded with native lambs and yearlings from adjacent localities, and prices followed those of Chicago, ranging between \$5.25 and \$5.75 for the former, and from \$4 to \$4.25 for the latter. A peculiar feature has been that good medium-weight fat wethers began to be in demand at fair prices. By the middle of the month top lambs reached \$6.35, and fair to good, \$5.50 to \$6.

Wool

The wool trade remains as for some time back: steady as to prices, but slow, because manufacturers have taken to buying in small lots, as needed. Probably they are largely influenced by a desire to wait until they know what is likely to be done about the tariff.

The Export Trade

Germany has decided to remove the embargo from the importation of meats, and England is paying good prices for frozen carcasses from Australia, New Zealand and Argentina. It is likely (or ought to be) that our own people will try to recover at least a share of the benefit of these markets. In Europe the people know that there is no such thing possible as really good meat without its due share of fat; and their economical instincts have taught them to eat it—a lesson we have yet to learn. They will, therefore, take heavier and fatter sheep than we have much use for.

JOHN PICKERING ROSS, Illinois.

Basis of Hog-Market

INDICATIONS are that the hog-market has found its winter basis. The packing interests have begun buying in large quantities of the medium and better grades, and in fair quantities of even the tail-enders. Everywhere there seems to be a healthy demand. Although the large killers fight every advance, they come trailing in later and make their purchases at the new figure.

During October there was quite a showing of fat sows and a few heavy barrows. These improved the average quality of the market. The fore part of November they disappeared again, and the average quality and weight fell back to its old position. In spite of this decline and of a lessened number of shipments to eastern points, the markets of the corn belt showed an increased demand and a tendency to go to higher levels—everywhere things seemed to be in a healthier condition.

Prices have fluctuated somewhat, going to the lowest point of the fall about the first of November, only to rise again; then a slight fall upon heavy receipts, followed by

a greater rise, with the general trend all along toward higher prices. Commission houses have for some time been urging hog-raisers to finish their hogs if possible. In the light of present prices this advice is proving profitable to those who have heeded it.

Let us take the Chicago quotations for November 8th as a basis: Top 125-pound pigs sold at \$5.25, and top 250-pound hogs, at \$6.40. The pig, therefore, is worth \$6.60, and the fat hog, \$16, or the 125-pound gain is worth \$9.40. With but average gains for this quality of shoats, a bushel of corn will make ten pounds of pork, thus requiring twelve and one-half bushels to make the entire gain; and, as this is worth \$9.40, the price obtained for the corn is \$0.75 per bushel. Gains of twelve and fourteen pounds per bushel have been often obtained by skillful feeders under favorable conditions. Such gains as these would bring the price gotten for the corn near the dollar-mark. Reports show that much of the corn this season is soft and will not be salable. Such corn fed to hogs should surely give six pounds of pork per bushel. At the above figures the price gotten for this corn would be \$0.45 per bushel—a very good price for such a grade of corn.

As the future changes in market prices are expected to be in an upward direction, the profits from feeding will be correspondingly larger than those figured above. The farmer with a drove of shoats will find it profitable to finish them to a good heavy weight. L. K. BROWN, South Dakota.

The \$2.25 Advance

NO GREAT change in the last two weeks in cattle. The real good cattle steadily hold their own and even increase a little in price, and will probably do so until Christmas. After that there will be few \$9.25 steers. Packers are paying more attention to, and paying more for, short-fed steers, now that the run of grass cattle is over from the West. Stock cattle are gradually working higher on the desirable kind.

A good nine-hundred-pound steer will cost at least five cents per pound, so that, if fed five months and making an average gain of sixty pounds per month, this steer will weigh twelve hundred pounds and cost \$85. It is necessary, then, for the average feeder to get an advance of \$2.25 per hundred to play even. Will the feeder get it? I think he will, but this is no year for any weak sister to feed, as it's always darkest just before the dawn, and the feeder must be prepared to stay by it until it comes his way, which it surely will. There is always the chance that the \$2.25 advance will come before the five months, but if it does not

A farmer lost money at farming—and then he found out why. FARM AND FIRESIDE will tell all about this man. Watch for the story—it will be worth your while.

do so, don't get weak-kneed at the wrong time. This is one year when it will be necessary to make a close study of the cost of feeds used. A great many men seem to think that buying cotton-seed or oil-meal adds to the cost of feeding. This is wrong. It really cheapens the cost of feeding, as by the use of two pounds daily per head of either to balance the ration it is possible to use up as roughage corn-stalks, straw and corn-fodder, which, if fed alone, will not produce good and economical gains in cattle.

I have never considered it advisable to feed either with clover or alfalfa hay, unless it be on very good cattle at the finish. I mention this now, as it is possible to cheapen the cost of making beef this year when roughage is so high, by feeding two pounds daily per head of either cotton-seed or oil-cake, with corn at night and turning the cattle out in stalk-fields or old straw-piles, to find their own roughage during the day. Used this way, a forty-acre field of stalks will last a long time, and this year will make a cheaper ration than feeding expensive hay. W. S. A. SMITH, Iowa.

The Southwestern Farmer and Breeder has this to say: "Texas stockmen are becoming more interested in sheep husbandry, not only because that is proving the most profitable of live stock, but because Texas needs sheep, and improved sheep, to help maintain Texas farms."

W. E. Barnard, a big ranchman from Montana, writes Clay, Robinson & Co.: "The big ranches are about all gone. Texas breeding-grounds, where the Northwest rangemen formerly got supplies of young stock, are rapidly being cut up into farms. In the Northwest big ranches are rapidly disappearing under the onward march of the farmer."

Profits from Hogging Corn

A FEW years ago we gathered up a bunch of pigs which, together with our own, made a bunch of 175. They were not of the best breeding. On April 29th the lot averaged 97 pounds and, figuring our own in at the same rate as the others, the lot cost \$967. We fenced off fifteen acres of clover for them with the thirty-six-inch fencing. They were given the run of a wood-lot which at the same time was pastured to other stock. We started them out on 80 pounds of ear-corn a day, increasing the amount until they were getting 250 pounds, at which time we began to feed the jerked ears for a few days, when they were put on six acres. After this was cleaned up pretty thoroughly, they were given another six acres. Without counting the value of the manure and the cost of the labor, the results were as follows:

Expense:	
97 pigs	\$967.00
14 tons of ear-corn, at \$1 cwt.....	280.00
15 acres of clover, at \$15 per acre..	225.00
5 acres wood pasture, at \$10.....	50.00
12 acres of corn, 35 cwt. per acre, and at 55¢ per cwt.....	231.00

Total expense.....\$1,753.00

Receipts:	
135 hogs, 208 lb., at \$8.40 less shipping expense.....	\$2,260.29
32 hogs, 168 lb., at \$8.....	448.80
2 hogs, 160 lb., at \$8.....	25.60

Total receipts.....\$2,734.69

Profit, \$981.69.

In this reckoning the values are given at full market price. The pigs saved the cost of harvesting the hay, which more than balanced the cost of watering them and feeding the corn during the summer. Besides it cost no more to feed the corn than it would have cost to have hauled it to market, five miles distant. Thirty-five acres of clover just beside this field yielded at the rate of two tons of dry hay per acre, which, at \$9.50 per ton, less the cost of baling, brings \$15 per acre, which is enough, considering the fact that there was no cost connected with the harvesting of it. The remainder of the field of corn husked out at the rate of thirty-five hundredweight per acre, and the price until after December was less than \$0.55 per hundredweight at the market.

But we will not let the matter stop here. We are paying \$0.07 per hundredweight for having corn husked. It will take fully another cent to pick up this corn and crib it. We are five miles from town. We can haul two tons of corn to a load. A man and team are worth \$3.50 per day. Thus the cost of marketing is \$0.043 per hundredweight. To cut corn of the size of that field by hand will cost \$2.45 per acre. Say that two men with a binder cut seven acres of corn a day. That is at the rate of \$2 per acre, and with the yield here, a cost of \$0.057 per hundredweight. Adding all these expenses together, we find that the hogs saved us a total of \$0.18 per hundredweight in harvesting the corn. Thus, in reality, the corn, instead of bringing us \$0.55 per hun-

dredweight, brought us the same amount that it would have brought had it been sold for \$0.83 per hundredweight at our home market. Thus we have a perfect right to add this total saving of \$75.60 to the total profits on the deal. In reality it would be more on many farms, for in some cases we would have to spend time in the supervision of the work and in hunting the help.

There is still another matter to come up. The value of manure produced by a 150-pound pig on a highly nitrogenous ration is \$3.24 per year, and a pig of similar weight on a carbonaceous ration is \$1.84 for the same length of time. We had these pigs on hand for over six months. Now to be on the safe side we will take the lower figure, and to allow for any other possible source of error we will take a total weight of 18,000 pounds as a basis for estimating the value of the manure. Figuring in this matter we have \$108 as a very low estimate on the value of the fertilizer already spread out on the land. Adding this to the gains account:

Gain, saved on labor.....	\$75.60
Value of excrement.....	103.00
Add	981.69

Total profit.....\$1,165.29

I may be accused of having shown this transaction up in the best light possible, and I admit that I have.

The prices were especially favorable, but the gains were not good at all. We feel satisfied that they can be increased by better management, while with a lot of better quality it is a sure proposition. We have hogged down corn for several years, and in every case we have made a profit without having to figure out a gain through the saving of labor. C. A. WAUGH.

Farming with Tractors

By James A. King

The use of gasoline, oil, coal, etc., in propelling farm machinery is more common on large areas than on small farms. In fact, the large farm can scarcely pay profits without some sort of power other than horses. And there are many suggestions in an article of this kind for the small farmer, too.

EDITOR.

FARMING is as much a business as manufacturing or commerce. The application of business principles and methods to this, the oldest of man's occupations, will revolutionize it as much as it is now revolutionizing the great modern industries. It must be put on this basis. The man who cannot apply business judgment and methods to his work will soon have to go out of business for himself and work for someone else. The high cost of labor, materials, supplies and all things which one must buy, and we buy more stuff than we did a quarter or half century ago; the high standards of living now in vogue by which things that were luxuries or unknowns to our fathers we now consider to be necessities of life; the complexity

started after my blood. But let me tell you something, Mr. Horseman; I know what I am talking about from actual personal experience. I know from three years' actual experience farming with engines that what I have said and am going to say is true. I have the figures from actual field records to back it up. And before I began farming with engines I had had years of experience farming with horses. Now can you say the same thing in trying to dispute my statement? First, let us look at this problem of costs.

When your horse is working, we will suppose he is a 1,500-pound horse, you feed him at least eighteen quarts of oats and fifteen pounds of hay a day. When he is not working, he gets from half to two thirds as much. He needs feed whether he works or not.

Horses Versus Engine Power

Five horses are as many as the average farm worker ever drives at one time. I have used a great deal of the time during the past three years an engine that will do the work of twenty-five such horses as I have allowed you. This machine requires one man to run itself and only one man to tend the machines or implements it draws, often none. Two men and the engine doing the work of five men and twenty-five horses. Taking the average of the country over, if you have good young horses that will serve you faithfully and continually for as many years and as much work as my engine will serve me, you have paid at least \$5,000 for them and their harnesses. The chances are that east of the Missouri River you have paid more. My engine costs \$2,250.

Now, mind you, we are business farmers. We are going



Plowing is easily done this way

Cost of doing the same work with a kerosene-tractor:

2 gallons gasoline, @ \$0.102.....	\$0.204
51 gallons distillate, @ \$0.05.....	2.55
2 gallons lubricating oil, @ \$0.20.....	.40
Labor of plowman.....	1.50
Labor of engineer.....	2.50
Board of two men, @ \$0.57.....	1.14
Depreciation on \$2,250, @ 10 per cent. a year, counting 200 working days in a year.....	1.125
Interest on \$2,250, @ 6 per cent. a year, counting 200 working days a year.....	.675
Total.....	\$10.094

Saving in favor of the engine, 48.3 per cent.

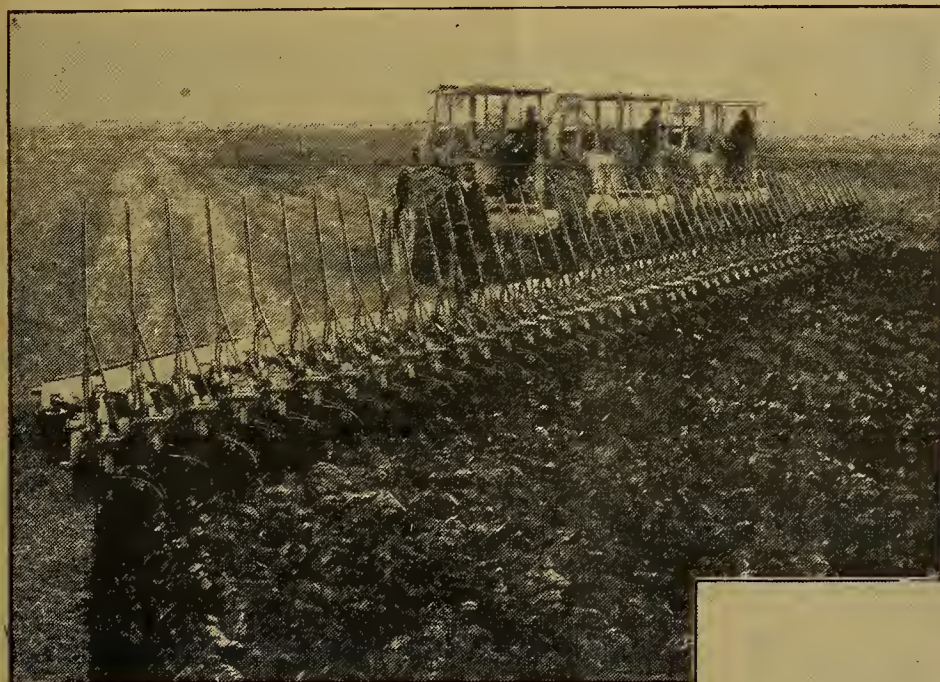
Now look at that for a while. Read it over again. Let this fact grow upon you: The cost of doing that plowing with my engine was only 51.7 per cent. of what it was when doing it with horses. Just to see how it compares on your farm, ask the Standard Oil man what he will sell you his cheapest grade of kerosene at in lots of fifty gallons or more. And when he tells you, don't murder the groceryman for what he charges you in five-gallon lots; the poor man must live, you know. Then find out what you can get for oats and hay. Substitute these prices for what I have used, and see what the result is. The quantities of oil and fuel I have charged and the acres I have shown plowed are not exceptional day's records, they are only averages.

Now I can show you similar results when comparing the cost of disking, of seeding, harvesting, hauling hay and manure and other things, of making and dragging roads, etc., but it is not necessary. I have shown you a comparison on the hardest job the horse is required to do, the one job which injures and kills more of him than any other, the one at which he falls the farthest short of doing his duty.

The Problem of Hired Help

In discussing this subject of comparative costs, there are a few things of which we must not lose sight. The use of a good engine reduces the number of men needed to do the work of the farm. There is no greater problem facing the farmer to-day than that one of hired help. It is expensive, it is hard to get and generally unsatisfactory when you do get it. If you have no boy to help you run the old farm with the engine, you will be able to get the best help to be had in your community because you do have the engine. I find that the best men working out in my community ask me for a job, and I have no trouble in keeping them. And if you have a boy and he has been growing tired of the farm, see what intense interest he shows when you talk engine to him. Get a good general-purpose tractor, and let him run it.

That boy who was once discouraged and disheartened will now be the liveliest wire on the job. He will be your partner, and if you don't hustle, you will have to admit he is pretty near the whole cheese on your farm.



A plowing test made at Purdue University

of life by which we must sell our products at the low wholesale price of the producer, and buy at the high retail price of the consumer; by the conspiracy of all these things our business has become a fierce struggle in which only the most highly competent will continue to do business at a profit.

In order to still stay in the business and find a neat little balance on the credit side of our ledger at the close of each year we must ever strive to do two things. These are to decrease the cost of operating each acre of our farm and to increase the value of the produce from each of these acres. Simply accomplishing either one of these is not enough. We must do both.

Reducing Farm Expenses

There are two ways in which we can reduce the cost of working our land. These are to reduce the number of men necessary to work it and reduce the cost of operating our implements and machines. The two ways to increase the yield from each acre are to increase the quality of the seed used and the quality of the work that is done.

The past two generations have seen wonderful strides made in the application of machinery to farm work. The great tendency has been to substitute machines for men, because man labor costs so much. In doing this they have used animals, especially horses, to furnish the power necessary to operate these machines which were used to do the work of men. One man with several horses and a machine can now do work which formerly required a number of men. For instance, one man and four or five horses will now cut twenty acres of grain and bind it and shock it. To do that by hand would require from eighteen to twenty men. And what is more the men would not do as good a job as the horses and the machine do. The horses are used because they cost so much less than the men.

In the application of machinery to farm work there has now grown up a new tendency. That tendency is to substitute mechanical power for horse-power. The latest and best and cheapest method of doing that is by the use of kerosene-burning traction-engines.

The reason for making this new kind of substitution is that world-old one of cost and efficiency. A good traction-engine will now do most of the work on the farm formerly done by horses, and do it both cheaper and better than the horse can do it.

Right here I feel the necessity of fortifying myself. The average horseman has already called me a liar and



Furrows deep and wide

to charge up as cost of doing the job of work not only feed for the horses, wage and board for all the men, but also interest and depreciation on the money invested in our power. If you have your own money invested, you are depriving yourself of interest you could get if you were to loan it to someone else. Some day you will have to buy new power. So these two items are legitimate and businesslike charges which should be made against the work we are doing. Right below here I give a tabulation which shows the results of this comparison on a job of plowing. The cost of one day's plowing with five men and twenty-five horses is as follows. These figures are for average conditions and under prevailing prices:

14 bushels of oats, @ \$0.34.....	\$4.76
375 pounds of hay, @ \$10.....	1.80
Labor of 5 men, @ \$1.50.....	7.50
Board of 5 men, @ \$0.57.....	2.85
Depreciation on \$5,000, @ 10 per cent. a year, counting 300 working days a year.....	1.66
Interest on \$5,000, @ 6 per cent. a year, counting 300 working days a year.....	1.00
Total.....	\$19.57



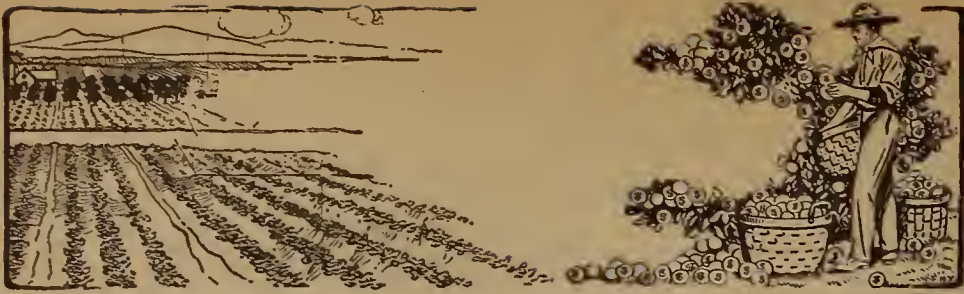
Seeding large areas requires much power



Making hay

Another thing to notice is this: In the tabulation of comparative costs which I showed you above I have charged the horse work with only the hay and grain eaten the day the work was done. No charge was made for their feed the days they are idle. But you know, and I know, that those horses stand idle a good many days and parts of days in a year. And on these idle days they eat almost as much as when they are working. Even when they are idle for a long stretch at a time they eat half to two thirds as much as they do when working. But not so with the engine.

[CONTINUED ON PAGE 11]



"Land Hungry?" $\frac{1}{2}$ Your Crops will Pay for Your Farm

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Live Stock and Dairy

Dollars from Feeding

Why Not?

MANY farmers are discouraged this year and will not feed, owing to high price of feed. I cannot figure out where there can be any great change, even with bountiful crops. Next year feed will be high, with stock cattle higher. How, then, are we as farmers and feeders to meet these conditions? By more economical methods of feeding and by utilizing more of what is now practically waste on the farm.

Particularly is this so with the corn crop. It has been proved by several tests that beef can be produced from eighty cents to one dollar per hundred cheaper by using silage as a part of the ration. When I read these tests, I made up my mind it was time for me to get busy, if I meant to keep up with the procession. So the first silo on my farms is built and full, and holds three hundred tons.

How much higher will my feed-bill be than last year? Maybe someone good at figures can tell me. My feeding test on this year's calves showed that the average amount eaten for eight months was daily, per head, thirteen and five-tenths pounds of corn and six pounds of alfalfa. This year my calves will get an average of ten pounds of corn, at fifty-five cents; ten pounds of silage, at five dollars a ton; three pounds of alfalfa-hay, at twelve dollars per ton, farm prices, and I fully expect as good a gain. Mark you, five dollars per ton for silage is a pretty good price to get for corn that, owing to the dry weather, was hardly worth husking, as it was raised on a run-down farm bought last year. There was just as much money made and lost when corn was worth ten cents per bushel and steers worth \$3.50 as there is to-day with corn at fifty-five cents and steers at \$8.00. The only difference is that it was brawn then and it is brains now. Some men run away with the idea that this country will eventually be cut up in small farms. I do not think so. The big fellow with business ability is going to swallow up the little fellow every time, and the big fellow is going to do it through live stock, manure and clover. How do you measure up?

For many years I followed the prevailing custom of feeding cattle with scoop-shovel and a fork, simply aiming to keep the bunks full of corn and hay. If my bank account were larger at end of season, I had made, and vice versa if my bank account were smaller. But one year I got Professor Henry's book on "Feeds and Feeding." It opened up for me a great field for study. Such a book cannot be read, it must be studied, as it is not one man's opinion, but the best of everything now known to date. One item mentioned was that a great many feeders fed once a day, and it struck me at once what a saving of labor it would be if I fed only once a day. I had a large yard divided in two with a set of scales between, and for two years fed the cattle in one yard once a day and in the other yard twice, weighing the cattle monthly. The cattle fed once a day made just as good gains as the cattle fed twice. Both lots of cattle were always fed all the corn they could eat. For the last ten years I have fed once a day. The allowance of corn is weighed and put in the trough, then the hay is weighed and put in at eight in the morning, and no one goes near the cattle until eight the next morning.

Near the end of this experiment I had in another yard some smaller cattle which it was not my intention to fatten then, but simply to carry along in good condition. These cattle were fed about ten pounds of corn and alfalfa-hay, and to my surprise they made almost as large gains as the cattle getting all the corn they could eat.

Just Be Economical

This started me to figuring out not how to get the largest gains but the most economical, and thinking back a little of some of my sea experiences, I remembered that it took in my time four hundred tons of coal to make a steamship go twenty-one miles per hour, but it took six hundred tons to get one mile more.

In other words, whenever you try and force anything beyond its limit, the extra gain is very expensive. Why, then, did not the same thing apply to steers? If ten pounds of corn and fifteen pounds of alfalfa made two pounds' gain per day, wasn't it absurd of me, with feed at prevailing prices, to feed twenty pounds of corn and eleven pounds of alfalfa to get an extra one-half-pound-per-day gain? These different phases of feeding which I write here in a few minutes did not come to me as quickly. They are the experience gained in fourteen years of careful watching and experimenting and with a good deal of study as to feeding values. Another thing in my feeding worried me a great deal, and that was the waste particularly of hay. One week the steers did not seem to eat as much hay and the racks filled up with hay that had been mouthed over. No cattle on feed like such hay. Next week they did not seem to get enough. We were apparently

feeding about the same every day. I decided to weigh the hay and was surprised to find such a variation between loads. The weight varied as much as six to eight hundred pounds. Some of the alfalfa and clover shocks were packed much closer than others, depending on just how it was put up. Then again, if a cold snap came on, the cattle ate more, and when it warmed up again, they let up. I came to the conclusion that it was not right for a steer to gorge himself simply because of a cold snap and go back on his feed again as soon as it warmed up, that it was the cause of a great deal of indigestion from which I had in my earlier feeding lost some steers, and also was the cause of scouring, even though the steers had been on full feed some time. It might be just as well to mention here that no man can ever make a success of cattle-feeding who allows one or any of his steers to scour. Weeks pass before they recover from the effects, and some are absolutely ruined as far as profits are concerned.

Steers on Full Feed

It is one grand mistake to try and get steers on what is known as full feed too soon. Personally I never get my steers on what is known as full feed. That is to say, they never in any twenty-four hours get all they can eat. When does a steer make his gain? When he is lying down. It is impossible to get economical gains if conditions are such that cattle have no comfortable place to rest. These different experiences as they came to me decided me to make a business, not a guess, of cattle-feeding and to weigh out all the feed, so that the cattle would have practically the same feed regardless of weather conditions, and also so that I might know exactly what it cost to make beef and where I was weak. I never sell cattle without finding out what they dress, and in watching the result at the International for years of the dressing of prize steers I knew that the simple plan of feeding once a day and of feeding a regular ration of simple feed raised on the farm, with the addition of sixty days on oil-meal as a finisher, would this year, with prevailing prices of feed, produce steers that would dress with anything at the International, and that the beef would be produced at a profit, and the dressing test at the International would show it.

W. S. A. SMITH.

A Case of High Spirits

AN INDIANA reader has an eight-year-old mare which he says is gentle but has a touch of high life. Although she is a good driver and worker, she has the objectionable habit of spurring up usually coming toward home, and is difficult to handle.

The habit mentioned is not uncommon in horses that have plenty of life. If they are not used often, it is simply an overflow of spirits for which there is no better cure than more work. In horses that are used every day it can generally be checked by feeding less oats and more corn.

Another cure is as follows: Bring the mare either to a standstill or a walk every time she exhibits the vice, being very quiet and gentle with her, and keep her to a walk till her nerves have time to settle a little. If this plan is faithfully followed up, it will usually effect a cure in a few weeks. But its effectiveness depends upon its being done always. It is of little use to do it sometimes and sometimes not.

DAVID BUFFUM.

Sweeny

AN ARKANSAS reader has a four-year-old mare sweenyed in right shoulder. She has never been bred, is hardly broke and her owner is obliged to use her for general farm work. I am asked what is best treatment for sweeny.

Sweeny has to be treated according to the length of time present and condition due to the wasting of muscles of the shoulder. In a case of recent standing rest is at first imperative, as lameness is present; but when lameness subsides, exercise or light work in a breast-collar harness proves beneficial, in that it encourages rebuilding of the wasted muscles. In an old-standing case the more exercise, the better, and treatment consists in blistering or other treatment calculated to stimulate growth of muscles. At first, soothing applications, such as a blanket wrung out of hot water, should be constantly applied and followed by rubbing with an anodyne liniment, such as a mixture of two parts extract of witch-hazel and one part each of tincture of aconite, belladonna leaves, opium and arnica. If much pain is present, half an ounce of chloroform may be mixed with each pint of the liniment just prescribed.

Where there is severe atrophy of the muscles, rub the part once daily with a mixture of one part turpentine and two parts raw linseed-oil until blistered; then wait for a few days, and repeat the application. This has to be persisted in until the muscles are restored. The hair should be clipped off before using the strong liniment; also before blistering, if that is preferred to using a liniment.

A suitable blister should be made. This is rubbed in for fifteen minutes, and washed

off in three days; then apply a little lard daily. A popular, but somewhat objectionable treatment, is to inflate with air the skin of the shrunken parts, or slit the skin and insert a quarter- or half dollar piece at the top of the wasted part. In severe cases, as a last resort, a few drops of turpentine may be injected by means of a hollow needle and hypodermic syringe at places a few inches apart over the wasted surface. This causes great swelling, which soon subsides. The treatment induces growth of muscles by stimulating flow of blood to the part. It is objectionable on account of the pain caused and liability to abscess formation and sloughing of skin. The persistent use of strong liniment, hand rubbing and blistering give the surest results. A. S. ALEXANDER.

All livery-stable horses are not chargers, but their owners are.

A Talk on Cows

THERE are too few good cows on the farms. Twenty years ago you could buy a really good cow for twenty dollars. Now, to buy a scrub cow that "stands dry" half the year, you must pay thirty, while if you want a grade Jersey or a Holstein it means much more. And it is all the farmer's own fault. If he would sell off those three or four scrubs, buy a cow that is of real value regardless of cost, breed her with sense, and keep the calves, and push them to full size and usefulness, then, and only then, will so many farmers cease to drink black coffee, and go butterless. On half the farms in my locality there is very little fence. A few rotten rails eked out with brush, or sagging posts with slack wires, invite a hungry cow to be a rogue. Again, examine the "pasture lot" carefully. The grass is coarse, bristly stuff that starving cows won't eat, with some mulleins, a lot of dewberry briers, some sumachs, a big patch of fruitless blackberries, and not a peck of good grass in ten acres! Yet the cows are kept here year after year. Bosh! Now, why not grub it out, tear it all up, and harrow in a mixture of orchard grass, timothy, a very little clover and several other grasses, all mixed up. For a cow to eat just one kind of grass all the year gets tiresome, just as if you ate potatoes at every meal for a year. Let her take mixed bites. It tastes better. To sow grass-seed one spring, and pasture it that fall is to ruin your set of grass, and is costly farming. Let it get a good start—up to the knees of the cow—and don't mow it off first, either. It is good pasture that makes the milk and cream. There is hardly a field or hillside so barren that some grass won't get a start. If put in the ground, orchard grass will grow most any place here in Maryland, improve the soil and make lasting and good pasture; but don't let it spread to the orchard, or away go your trees! Then the cow pens and stables! Some of the farm cow-stables are an insult to a goat—cold, leaky, foul, and floor uneven, and dark. How could a high-strung self-respecting cow chew her cud and be happy in such a hole? Get things in shape first—house, fence, pasture and water—then get your cow, the very best you can, and treat her as the apple of your eye. Plenty of vegetables sliced, fruits, good hay, fresh water, warm bedding, clean quarters, bran-mashes, and curry-combs! These make a successful cow, if she is of the right breed; and I wouldn't have any other, any more than I'd send the dog to bring her home. Not me. CLIFFORD E. DAVIS.

Rye or wheat, sown after the shock-fodder is removed or in the shock, affords tempting pasturage during late fall and winter months and in early spring.

Chicken-Droppings and Hogs

Pigs are very fond of chicken-droppings, and that is the reason they root over the chicken-coops when they get to them.

I have never noticed that the chicken-droppings did the pigs any harm and do not believe they do yet, for as a rule there is enough pigs in a gang so that none get enough to hurt them. In fact, I believe a limited amount is good for them. It seems to sharpen their appetites. But one case came to my notice lately to the contrary, of which I wish to mention.

I had a sow and pigs, and they were doing fine, but her appetite seemed to leave her, and she would neither eat nor drink to do any good, though I did my best to make up slop to her appetite. I hardly knew what to do, for I knew it was going to become a serious problem. So I endeavored to find the cause of her loss of appetite.

One morning I called her from her bed to slop her, and she came direct to the trough, but after taking a few swallows of the best slop I could make up, she walked directly to the tool-shed, and of course a tool-shed is a favorite haunt of chickens.

After seeing her gobble up the droppings made the night previous, I concluded I had the problem solved. Fastening up the shed, hog-proof, I was satisfied that I would get results, and sure enough I did. In about twenty-four hours she "came to her feed" and never missed a meal from that time on.

I have made up my mind that too many chicken-droppings are not good for hogs, especially brood-sows. OMER R. ABRAHAM.

"Them Steers"

Are Useful Animals

HAVE you given the boy a yoke of steer calves yet? If not, get a pair for him now, and let him raise them himself. Of course, you will have to help him out, give him points, and provide the feed, barn room and the yokes. These will need to be changed every little while as the little fellows grow. It is a good plan to have a set of yokes on hand all the time, and it is a better plan to have a yoke of steers coming on every year. They work well if well broken and sell readily at all times. If a leg should be broken, they are not a dead loss as in the case of a horse, for the butcher will pay a good price for the animal.

It will keep the boy interested to build the small carts and sleds that will be needed to teach them to work; a very little at first, but more and more as they grow older, until, when they are two years old, they can out-work the horse. At three years they ought to be able to do really hard work, and if sold at this age, and are well broken, will command a good price.

At first, when teaching them to work, they can haul small logs from the wood-lot, plow the snow from the paths on the farm, and haul out dressing. Of course, the loads will be very small, but they are smart little fellows and very willing. They should be worked a little every day, and will become great pets.

They are not expensive to raise, for they will need very little grain, just enough to keep them growing nicely. They should have shorts sprinkled over pumpkins, mangel-wurzels, small potatoes, or apples. This, with plenty of meadow-hay and fresh water, will be all that they will need in the way of feed, but they should be cleaned and brushed regularly. ANNIE H. QUILL.

Why Be Prejudiced

Here on our Connecticut fruit-farm we find oxen most useful in many ways. For moving stone, plowing newly cleared land and plowing close to young fruit-trees they are particularly useful. We also use them for general plowing and harrowing in the orchards, etc. They require less grain feed



than horses, and for many purposes are as useful or more so. They are slow walkers on the road, but often walk as fast as horses in plowing. With us a good yoke of cattle costs from \$175 to \$250 and after three to five years of use will sell for half their first cost to the butcher. Of late oxen are used on many fruit-farms hereabouts. One farm last year worked seven yoke, others, three to five. One difficulty is to get good drivers. There is a lot of baseless prejudice against oxen. Many small farms are stony or stumpy lands, and even those with large farms would find one or more pair of cattle economical.

The photograph shows the yoke of Devon oxen owned by us as they looked at the last Connecticut State Fair. W. A. HENRY.

Give Oxen to the Boys

There is nothing a boy takes a greater delight in than a yoke of oxen. There is good money in them, too, at selling-time. Our own boys broke a small yoke of Jersey steers to work. They were not worth over eight dollars apiece when they bought them. They kept them until they were three years old, and sold them for \$100, besides harrowing the wheat and corn ground, grubbing or pulling bushes and stumps from a ten-acre plot, dragging logs, hauling wood and doing other work in rough weather. It paid under our Tennessee conditions. D. B. PHILLIPS.

In yarding sheep, don't forget a constant supply of good fresh water and rock-salt are a necessity; also, plenty of good fresh bedding, and always a dry lair.

Why not select a few choice, smooth, healthy pigs from the herd for your meat, and feed them especially pure, clean feeds till butchering-time? The good health and sanitation of you and your family demand that you do this.

Put up a neat bulletin board in front of the house. It will give the place a more businesslike appearance and often assist you in disposing of any surplus stock or products you may have on hand and yet not care to haul to market.

Stock well fed and properly groomed may be half sold, but remember that it is important to do the other half of the selling properly to get all you should. In other words, give careful consideration to the marketing of your stock, as well as to their selection and growth.

Housing the Sheep

FOR the beginner in sheep culture at the present time the most important work is the housing and feeding of the ewes and lambs. Contrary to a common idea, a great degree of good, straight, hard cold can be borne by sheep, and even by lambs, after their first few weeks, without detriment; but cold rains, damp and unclean quarters and too great heat, generally caused by overcrowding, will play havoc with the healthiest flock. For these reasons it is but little costly to provide shelter for a medium-sized breeding flock during the winter. It is, of course, a great advantage if there is a good shed open to the warm side, because it will form one side of the proposed sheep-yard, but it must be near the homestead and, if possible, in a good grass field of a few acres. Such a shed being already there, or the funds to provide it available, the most expensive part of a pen that will shelter perhaps one hundred ewes and their lambs is already provided.

In FARM AND FIRESIDE of August 25, 1910, a very complete description is given of this yard, with a sketch which will enable any farmer to build one. I hope most of our readers have acquired the habit of filing the paper, but to those who have not, who will address me through FARM AND FIRESIDE, I will endeavor to make its arrangement plain. It is the simplest and best winter sheep quarters I have seen for small flocks in both England and Scotland, where both a wild climate and economy are common. And as with us nearly every farm has a good, open shed near the house, the most costly side of the yard is already provided. It is only necessary to provide against drafts, which are deadly to young lambs. Straw should be plentiful and cheap enough, and after it is done with for shelter walls it is ready for the manure-heap, and there is no product of the farm from which a warmer shelter wall can be built if it is wired down safely against storms.

I have taken some trouble to describe all this in the issue of FARM AND FIRESIDE I have mentioned above, and it being the product of years spent among Scotch and English shepherds, as well as much study of sheep over here, I believe most of it is reliable. I do not profess to write for the big breeders and feeders of sheep, who have long studied their business.

JOHN PICKERING ROSS.

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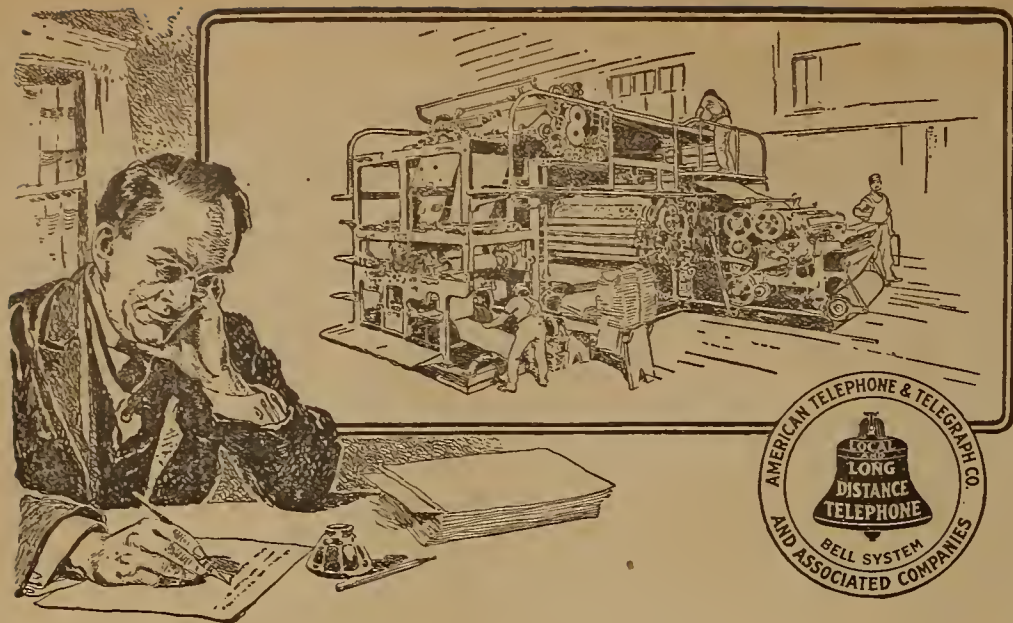
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Poultry-Raising

Keep Hens, Mr. Farmer!

THE farmer's flock receives not nearly the care and attention that the town man's flock does, yet pays as well or better than any other of the various lines of general farming. Given the same care that the flock kept on a small lot receives, it would pay much better than it does now. There are so many things that the fowls need that are free to their eager foot and beak, that on the farm have no other money value. Their green feed, water, a part of their meat ration, and usually their grit, they find for themselves, and they pick up weed-seeds, scattered grain, etc., that materially help out the grain ration. It is a mistake, however, to let them go without attention. Some of them will rustle for themselves, and find all that they need, while others will not, and these last will soon become unprofitable, or perhaps sicken and die.

Farmers commonly believe that hens on free range do not need any further supply of grit. On farms where fowls have been kept for years the greater part of the sharp grinding material has been picked up. The energetic hens will find enough to keep them from getting sick, but there are others who will find little or none. These are very liable to droop and die of indigestion. A load of sharp gravel, dumped in some accessible spot, where the hens often congregate, will furnish them "teeth" for all summer, and the energetic ones will do better for a plentiful supply.

What Feeds are Best?

Hens also need more meat, or food of a meat nature, than they pick up for themselves. This may be supplied, where skim-milk is plenty, by feeding milk. This may be fed in various ways. I prefer to feed it sweet, as there is then little danger of bringing on looseness of the bowels which sour milk will sometimes do. Chickens are very fond of milk, and will drink large quantities, if it is where they can get at it. Sour milk, heated until the curd is well separated, is better than unheated milk, and the curd, squeezed dry, is excellent food for chicks and young turkeys. It is much less work to feed milk by itself, but I think the best result is obtained by using it to wet up a mash, and this is excellent both summer and winter. Where it is considered more profitable to use the skim-milk for pigs and calves, the best meat ration is dry bone and meat, which can always be purchased at feed-stores. This costs from three to three and one-half cents per pound, and many farmers think they cannot afford it, but it displaces in heartiness more than pound for pound of other food, and will increase the egg yield much more than its cost. The best way to feed it is to place it in self-feeders and keep it constantly by the hens. It will seem as if they were eating a great deal of it at first, but as soon as they have supplied the deficiency of animal food in their systems they will eat only enough to keep up the average, which will not be a large amount. One need not

fear that this will prevent them from hunting worms and grasshoppers, for they will always prefer a live grasshopper to a dry bone.

It is not the best plan to keep large and small fowls together, even on free range. Buy a roll of chicken-fencing, and turn one of them one way, and the others another. We have run fences each way from the buildings, and the Leghorns run back of the barn, where they have the whole pasture and a grove of trees for shade and a brook for water, while the Plymouth Rocks run the other way around the house and fields. Not being so prone to scratch, they are not so much of a nuisance as the Leghorns. The garden is fenced in, however, for safety. Fowls do well in all sorts and conditions of houses. It depends more on the man than it does on the breed or the house. The two main requirements are scratching room and ventilation enough to keep out the dampness. The windows should admit the sunlight freely. The canvas-covered window seems to work very favorably, but in cold climates I should not cover a very large space in this way. The farmer's flock most often all run together during the winter.

The Flocks Should Be Apart

This may be made to work very well, if the flock is all of one kind. Where large and small breeds run together, the large birds will not do well. If self-feeders are used, and food kept by them all the time, and there is room enough for scratching material so that they exercise freely, fifty hens, all of about the same size, will do very well together. It is much less work to care for them in this way. Unless food is kept by them, there will be many who will not get their share, and therefore will not do well.

A mixture of grains, fed dry, is as satisfactory as any method of feeding for the farmer who has many other chores to do. The saving of time and labor is considerable. Throw a part of this in the litter and keep a supply constantly before them. Farmers' fowls often suffer in the winter for lack of water. The egg is largely composed of water, and hens will not lay without it. They will live on very little, or even on what snow they can get, but no one need expect eggs, unless they have all the water they want. There are also farmers who supply no grit through the winter, and along toward spring their hens die with bowel trouble. Their grit should be renewed every three or four weeks, as that is as long as it will remain sharp enough to do good work. Where gravel can be easily procured, a load, dumped where it is handy, can be carried to them a bushel at a time, as often as needed, and costs nothing but the time of getting it. The value of a very few hens would buy crystal grit enough to last all winter. Some will die if they do not have grinding material. They do not require a large quantity at a time, but need to frequently renew the supply. Attention to details is needed to make poultry pay. This is as necessary on the farm as elsewhere, and well repays the effort.

MRS. J. W. MATHIE.

Some men are too small even to be hide-bound; in their littleness their hide just folds in on itself, and they are lost in the folds of it.

Turkey Tips

BREEDING turkeys can be profitably kept up to the fifth and sixth year.

From eight to ten hens to one tom is good mating, and should produce one hundred and fifty poult.

A plump young turkey, dressing from eight to fifteen pounds, finds a market at almost any season of the year.

Wise breeders will not breed from the same tom more than one year unless the same breeding hens are retained.

When at all indisposed, a turkey should be separated from the rest of the flock.

The turkey industry will yield a greater net profit on investment than almost any other industry, but, if conducted on a large scale, calls for a high degree of skill and constant application.

The best roosting-place for young turkeys is on branches of trees. They will not suffer from exposure, and the open life will make them strong and healthy.

It is advisable to place a box of grit or coarse sand where the turkeys can find it, as not all farms have sufficient quantity for the purpose of good digestion.

Some turkey-raisers prefer to market the toms in December, and keep the hens until later, so they will increase in weight and command a better price.

If possible, the breeders should be separated from the others while being fattened for the market, as it is very injurious to the breeders to become over-fat.

The reason the wild turkey retains its health and vigor, it is said, is because they kill off the weakly and sickly ones. If they find a weak turkey that cannot keep up, they immediately pounce upon it and destroy it, so that there is no inferior or weak ones to breed from, and the flock remains strong and vigorous. A lesson we might learn from nature.

A good plan in killing turkeys is to be as humane as possible, but they should be dry

A Sure Way To Get More Eggs

Remember it is not always the amount of ration a hen eats that goes to make eggs, but the amount she digests—keep that fact uppermost in your mind—act on it—and you'll make the egg business a paying business. Dr. Hess has compounded a number of bitter tonics which help the hen to digest more of her food and thereby increase her egg yield.

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is the personal formula of Dr. Hess (M.D., D.V.S.); it solves the problem of converting nutritious food elements into eggs by sound digestion. By exactly the same process, Dr. Hess Poultry Pan-a-ce-a fattens broilers and helps the chicks to vigorous maturity. A penny's worth feeds thirty fowl per day—sold under the most liberal guarantee.

Our Proposition—You buy Dr. Hess Poultry Pan-a-ce-a of your dealer. If it fails to make your hens lay more eggs and keep your poultry healthy, he is authorized by us to refund your money. 1½ lbs. 25c; mail or express 40c; 5 lbs. 60c; 12 lbs. \$1.25; 25 lb. pail \$2.50; except in Canada and the extreme West. If your dealer cannot supply you, we will. Send 2c for Dr. Hess 48-page Poultry Book, Free.

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DR. HESS STOCK TONIC. Been 18 years on the market—proved a continuous success as a flesh, muscle and milk producer. Good for Horses, Steers, Hogs, Cattle and Sheep. Increases digestion—lessens nutritive waste of feed—makes a splendid conditioner. Not a ration—but makes a ration more valuable. Guaranteed just the same as Dr. Hess Poultry Pan-a-ce-a. 100 lb. sack \$5.00; 25 lb. Pail \$1.60. Except in Canada and extreme West and South. Send 2c for Dr. Hess Stock Book, free.

Free from the 1st to the 10th of each month—Dr. Hess (M.D., D.V.S.) will prescribe for your ailing animals. 96-page Veterinary Book free for the asking. Mention this paper and enclose 2c stamp.

INSTANT LOUSE KILLER KILLS LICE

picked, leaving the head and wings on. After being picked, dip in hot water and then in cold, which will give them a plump, flesh look.

An English writer says there are two points to consider before choosing the breed of turkeys—namely, whether the birds are to be reared with the purpose of making a profit with them, or whether they are only for home consumption. If the former, he selects the Bronze variety. He says for profit it is purely a question of obtaining birds of the heaviest possible weight when they are from six to nine months old. He further says that not only does this breed produce heavy weight, but the quality of flesh is also obtained. In my experience I agree with the writer.

A. E. VANDERVORT.

Cooked Oats

ONCE every day during the cold weather our hens get a feed of boiled oats, and it is as amusing to see their evident disgust when uncooked oats are set before them as it is gratifying to gather the eggs on cold days. We think there is a connection.

Every morning the big cooker is filled about half full of oats, and these are cooked slowly with plenty of water. If the fire is out by noon and the cooker covered, there is just about enough heat left for a warm night feed. They do not seem to tire of it, and they certainly do lay. ALICE M. ASHTON.

A peaceable man will sometimes fight like the dickens to be let alone.



A plan for next year

The Tin-Tenement

How to provide a roof over the heads of the dozen flocks of chickens? That question came forcibly to me this last spring, for to build coops at that busy season could not be thought of. I suddenly thought of the empty acetylene-cans at the lighting plant in town. I telephoned the manager, and found I could have all I wished. They would be only too glad to have them carted away. The illustration shows what little work is required to convert them into model chicken-houses. With a chisel, cut down the edge and fold back the tin, also make a hole in the top and the bottom, through which can be thrust a slat to confine the hen when necessary, while allowing the chickens free range. The photograph shows Madame Orpington, who has been out all day long, leading her little flock home at night, to the Tin-Tenement behind the currant-bush.

MRS. JOHNSON WHITING.

EDITOR'S NOTE—It might be well to plan for this next year. Why not?

One Man's Way

IN THIS climate a permanent hen-house is sure to become infested with lice and mites unless more time is spent in fighting such pests than we feel able to spare from the regular farm work.

We have been using a form of temporary hen-house which we have found satisfactory and which costs but little.

At the southeast corner of the proposed house set two posts about six inches apart east and west. Two and one-half feet west of these posts set two other posts six inches apart north and south. This opening is for the door of the hen-house and the posts are to hold the ends of the poles of which the house is built, and should be high as the front of the house is to be. Cut poles of suitable length, according to the desired size of the house. Lay up the poles log-house fashion, the ends next the door being placed between the posts.

The roof we make of boards and give it sufficient slope to the north so that it will shed rain. We put in as many roosts as are needed, hang the door, and the house is done until cold weather. When the weather gets too cold for this open style of building, we set a double rank of corn-fodder bundles around the house, closely packed together, and our hens have a clean, warm, yet well-ventilated, house for the winter.

In the spring the fodder is as good for feeding as other fodder that is stored outdoors all winter. Lice and mites do not gain a foothold the first season, and when they become numerous enough to cause trouble, we tear the house down, make the material into firewood, build a new house on clean ground and start again free from the tormenting little pests. I can build such a house as this in a day, and it would require a good deal more time than that each year to keep a permanent poultry-house in a wholesome state.

COURT W. RANSLOW.

Farming with Tractors

[CONTINUED FROM PAGE 7]

It consumes nothing when not working. Its expense does not begin until you begin to work. Its expense stops the moment you quit using it. Shut off the fuel valve, cut out the spark-switch, and your expense has ceased.

Now consider for a moment the quality of work done by the engine compared with what you can do with horses. Every job of work it is adapted to do a good engine will do better than you can do it with horses. In fact, an engine-raised crop will give you more bushels of grain to the acre and grain of better quality than you can raise with horses. This means money.

There are good reasons for this. Let me illustrate by telling you how I seeded my grain on one of my farms since I learned the trick. On this farm I use a thirty-horsepower engine which does the work of fifteen

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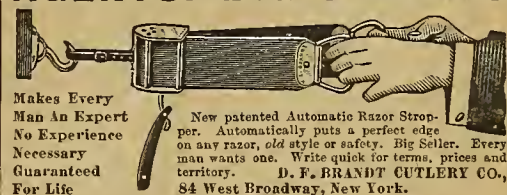
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Dan Patch 1:55

1 Mile in	1:55
1 Mile in	1:55 1/2
2 Miles in	1:56
14 Miles Averaging	1:56 1/2
30 Miles Averaging	1:57 1/2
45 Miles Averaging	1:58
73 Miles Averaging	1:59 1/2
120 Miles Averaging	2:02 1/2

Dan Has Broken World Records 14 Times. Dan is also Leading 2:10 Sire of the World for his age. Sire of "Dazzle Patch" the Greatest Speed Marvel of the World's History, which paced a half mile in fifty-nine seconds, and one-eighth of a mile in thirteen seconds, a 1:14 clip, when only 28 months old, in 1911. Also Pearl Patch 4 year trial 2:04. Some of Dan's Colts will be Champion Trotters as well as Pacers. Why not Raise or Buy One?

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Dan Patch 1:55 has eaten it Every Day, mixed with his grain, for over Eight Years, just as you eat the medicinal mustard, pepper, salt, etc., mixed with your own food. Minor Heir 1:58 1/2; George Gano 2:02; Lady Maud C 2:00 1/2, and Hedgewood Boy 2:01, have eaten it Every Day for past Two to Four Years and they have all lowered their very low records during this time which is additional, indisputable proof that "International Stock Food" as a Tonic gives more speed and more strength and more endurance because everybody thought these Five Horses had reached their speed limits before I got them. It will also keep your Work Horses fat and sleek and in Extra Strength to do More Farm Work or Heavy Hauling. It Always Saves Grain.

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He has paced more Extremely Fast Miles than all the Combined Miles of all the Pacers and Trotters in the World's History.

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I purchased a Tubular. Many of other makes, in this county, are being replaced by Tubulars. People know a good thing when they see it.
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Clearwater, Minn., Oct. 14, 1911.
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GARDENING

By T. GREINER

The Grape-Vines

IHAVE had my grape-vines injured by two or three hard winters in the past twenty years. Some varieties are somewhat tender. Concord, Worden and Niagara, the three standbys for home as well as market, are quite hardy, usually, but even they are liable to suffer if not treated just right. Sometimes we neglected to prune them in proper season, waiting until after the opening of spring. If the vines are allowed to bleed much, in consequence of such neglect, they are weakened and liable to be injured in a cold winter following. Better prune them right away, and then, instead of leaving them tied to the wires, and in an upright position, lay them down flat on the ground. That alone, without covering, will protect them. It is always worth while to do this in a cold country. We must have our grapes.

If we do not raise them ourselves, we have to buy them. I like to have my grape "cordial," or unfermented grape-juice, during hot summer weather. Commercial grape-juice is too expensive. We have it far richer and much cheaper when we do up our own. What a delicious, gratifying summer drink it makes, even when greatly reduced with fresh cold water! And do you know that the surplus black grapes may in this way be made the means of earning quite a little pin-money for the good housewife? Let neighbors and townspeople know that you have a supply that you are willing to sell at just a trifle below what the stores charge for the commercial article, say thirty-five or forty cents per quart (more than double cost price), and you won't have half enough to supply the demand. It isn't much trouble to make it.

Money in Pears and Grapes

A. R. G., a reader in California, writes: "In this far-off corner of the world we are greatly interested in grapes and pears, especially Bartletts. One farmer has just cleared one thousand dollars per acre from Bartlett pears." This pear has for many years been a main money crop here in western New York. No need of our going to California, or any other country, to find crops that will return a big profit. I have known farmers to do even better than one thousand dollars per acre from Bartletts, although that was quite a few years ago. But five hundred dollars and more have often been realized by our pear-growers from an acre more recently. This past season, however, was a poor year. The crop was poor, and the demand light except at a rather low figure. One year with another, however, Bartlett pears pay well, and so do grapes in the right location.

Cabbages for Winter

Cabbages may be had for the table all winter long and away into spring. It is only a question of properly storing them. We put some into the cellar so as to have them handy and ready for use any time we want them. They must be kept cool and not too dry. In most cellars they are apt to become wilted and tough. We leave ours outdoors, placed on their heads under a shed or in some protected corner until real winter sets in. Slight freezing does not hurt them if they are not handled while frozen. Then they may be placed in the same position (stumps up) on the cellar bottom. Or several thicknesses of newspaper may be wrapped around them, and tied around the stump, and the cabbages hung up against the wall. For spring use, you cannot get finer, sweeter and tender heads than those that were wintered out in the open, stood up on their heads in a row, single, double or treble, and covered with straw and soil, or soil only.

Figs Fall from the Tree

FROM North Carolina a lady writes to know how to make figs stay on the tree till ripe. The fault has caused her much trouble.

The fruit of the fig is of a peculiar character. Instead of bearing its flowers on the outside of the fruit as is commonly seen, it bears them on the inside of the fruit. These flowers on the interior of the fig are of four different kinds, known as the male, female, gall, and mule flowers.

It is on account of this complexity of flowering that the fruit-bearing of the fig is so uncertain. At least this is one of the causes. Another in North Carolina is on account of the climatic conditions which are not entirely favorable for its best development. North Carolina is about at the northern limit for fig-production under natural conditions.

There are several varieties of figs which vary in their bearing habits. The Adriatic figs differ from the Mission figs in containing a larger proportion of female flowers. On account of this the first crop, known as

"brebas," almost invariably shrivel and drop before reaching maturity. The second, or mule, crop develops into edible fruit. With this variety where the climate is not sufficiently long to raise two crops there is not much hope of getting good production.

The Brown Turkey fig is the hardiest known variety and under ideal conditions will mature two crops annually.

In North Carolina, fig-trees should be protected from cold and screened from rough and cold winds. The carrying of the first crop to maturity is apparently more due to protection from cold than from other causes, with this variety.

In pruning fig-trees, they should never be cut back unless when they are young bushes to keep them in symmetrical form. The frost does all the heading that is necessary when left to its natural growth. Heading back will expose the trunk and main limbs, and the bush is liable to be injured by sunburn.
B. F. W. T.

Cultivating Blueberries

WILD blueberries are among the most appreciated fruits coming from the swamps and lowlands of nature. They are distributed over much of the timbered area of the United States, and the fruits are picked and sold in the cities as luxuries. They make nice pies, and are used for wines and sauces. The greatest blueberry pastures are in Maine. The fruits from that state are canned and sold in many eastern and western cities.

Also New Hampshire and Wisconsin are blueberry states, and Washington and Oregon hold their own with the older states.

The Blue Jay

"**H**ERE! Here! Here!" the blue jay cries. Did you ever observe how this "jaybird" calls the clan together whenever anything arouses his curiosity? "Here! this way!" and away he flies leading his tribesmen to the thing that caused him all the anxiety. Should it be a screech-owl, the flock will be as excited as a pack of boys that have "holed" a rabbit. At other times, when the "bird-man" is abroad, solely on pleasure bent, the blue jay will send forth a warning cry, and the little creatures, bird and animal, will seek cover; at other times,



he will change his tactics and give the red-shouldered hawk's cry of "keer," which will, likewise, cause a silence in the woods.

The jays and squirrels are Nature's foresters, and, if given a chance, they will, once more, reforest the barren places, and all that they ask in return is to be protected from the fowler.

In winter the jays (and redbirds) will be daily patrons at the "birds' lunch-counter." All that is necessary is to fasten down an ear of corn; they can do their own shelling. Then, if the "counter" is near a window, so that they can be studied from indoors at close range, there is nothing that delights the old and young of a household more than to watch these dashing birds of blue.
H. W. WEISGERBER.

The true blueberries are grown on shrubby bushes, with glossy green leaves, that grow wild in the partly destroyed forests. They are sometimes called huckleberries, and the two fruits are often mixed so that only experts can tell the difference. But the blueberries, both blue and black varieties, have small, unnoticeable seeds, and the huckleberries have bitter, peach-pitty seeds, covered with thin, skinny coating, and grind and grate in the teeth when being eaten. The blueberries are sweet and in good demand in the ripe season. They sell in western cities, during September and until Christmas, for good prices.

Blueberries of the Northwest grow on logged-off lands. They are always prolific in districts where the surface has been burned over in forest fires. Indians discovered that secret many years ago, and made a practice of burning the logged-off sections every few years, in order to get better crops of berries and attract deer and other game into the open land. The Indians have always picked the blueberries, or huckleberries of the Northwest, and put them on the market. Picking-time opens in September and closes just before Christmas. The berries are picked by hand and put into boxes, weighing about thirty pounds each, and shipped to market, where they retail at seven to fifteen cents a pound.

Cultivated blueberries are much larger and more profitable than the wild ones, and many tracts are being set apart for growing the berries for market. In the native condition, where logging roads have broken down the bushes, or fires have burned them

off at the surface, the fruits are larger and better. That suggests the general cultivation by cutting down the old bushes once in three years and stirring the soil around the plants. Strawberry-crates are used in marketing the wild blueberries. A crate of twenty-four cups holds thirty pounds of berries. One picker can harvest two or more crates in a day. The crates sell for \$1.25 to \$2.25 each.

Wild blueberry-plants may be taken from the forest and set in similar soils, the same as other seedlings, and will live and prosper. The seeds are carried everywhere, on the tops of stumps, in trees, on logs and along streams by wild birds. Seedlings are found growing in all localities where old bushes exist. They have good roots, are easily transplanted and grow thriftily, having clean and bright-green leaves which are used for making wreaths and for decorative purposes during the holiday season. The new blueberry culture promises to add many individual canneries to the homes of farmers having blueberry thickets on the lands. Especially is this true in the Northwest, where the Alaskan markets are available.
JOEL SHOMAKER.

Diseased Trees

ONE Ohio orchard, twenty-five years old, another fifteen years old, shows some bad symptoms. Fruit is wormy and falls off badly. What solution should be used, is the question of the manager of the orchards.

Such trees are in all probability infested with the San Jose scale insect, and other insects and fungous diseases are no doubt seriously damaging the trees and fruit.

This is almost certain to be the condition of any orchard in this section of the country where regular and systematic spraying of the trees is not practised each year. The question for every farmer having an orchard to decide is whether he can with his present help, or that which he can get, at the right time, give the trees the care that is required. When this attention and work cannot be given regularly every year, an orchard is bound to be a losing investment on most farm-land.

Apple-growing has now become a special business instead of a general one, as formerly practised. Trees must be given regular cultivation or mulched, and well-adapted fertilizing and spraying will be required several times a year, in order to control insect pests and fungous diseases. Spraying must be done just at the right time. Thinning of the apples must be followed and the most rigid kind of grading done when marketing, in order to compete with the exceptionally attractive apples of the Pacific Northwest and the Rocky Mountain States.

For the farmer who has the right location in Ohio or other Eastern States and is willing to go into the apple-growing business on the same basis as is now being followed in the Northwest, there is a good future opportunity and he will have the advantage in the marketing. Nevertheless, until the eastern fruit-growers get the cooperative organizations now possessed by the western fruit-growers, they will be at a distinct disadvantage in the marketing and buying of orchard-supplies.
B. F. W. T.

Low-Headed Fruit-Trees

THE question of how high to plan for the heads of fruit-trees is to be answered only after a study of the local conditions. In general, low-headed trees are to be preferred, and for many reasons. The branches shade the trees, and thus prevent sun-scald and the attendant injuries. The fruit is easier to thin and pick, and the branches are easier to spray. In regions where the brown-tail moth is present it is easier to remove the winter nests. The young trees are easier to prune and head in. In fact, there are many advantages in favor of low-headed trees.

There are some disadvantages, however, as I know from experience. On my farm in northern New Hampshire, I started to head plum, cherry and apple trees very low—only about two feet of trunk and some even less. I found, however, that the ice-crust on the winter snow broke down many of the branches by freezing on them and then dropping as the snow melted. This was a serious trouble and compelled me in many cases to trim off the lower branches to give a higher trunk. The remaining branches thus are held above the snow and escape injury by the ice-crust.

Another trouble I found with low-branched trees was that it was more difficult to prevent injury by mice in winter. I wrap the trunks with wire screening to protect the bark from meadow-mice. Where the branches are low, the wire screening cannot be wrapped very far up, and the mice have often attacked both trunk and branches above it.
CLARENCE M. WEED.

Making a soil-mulch would have been better than praying for rain.

Bend all young and tender fruit bushes and vines carefully to the ground, place a layer of straw on them, and cover lightly with dirt. Utilize the straw next spring as a fertilizer and mulch for the bushes.

Farm Notes

New York Farm Facts

THE Department of Farm Management of the Cornell Experiment Station gives in Bulletin 295 the results of a survey made in Thompsons County. The object was to collect data from the actual farmers, in order to solve some of the problems which come up regarding the question as to whether farming pays. The data is interesting because it seems to have been carefully and intelligently done. In a recent lecture, Doctor Warren stated that some of the results upset some of the things which were supposed to be well known. For instance, it was supposed that a farmer should turn all crude products into finished products before selling. For example, it was found that the labor income was less where the butter was made on the farm than where the milk was sold to the creamery or to the shipper. The value of education is very striking.



Before any work was done

It is shown that out of 696 farmers only less than 15 had more than a high-school education. The labor income of those who only went to common schools was \$315. While those having high-school training received \$622, and those who had college training received \$847. In other words, the high-school education was worth \$307, or an income equivalent to 5 per cent. interest on \$6,000. The college education was worth about twice as much, or equivalent to the interest on \$12,000, at 5 per cent. This is of special interest when the question arises as to whether it will pay the farmer to send his son to a high school and college. It must be recalled that the value of real agricultural training cannot be counted from the results of this survey, because none of the farmers were trained in our modern schools of agriculture. To solve this question, one must wait until the statistics of agricultural graduates can be gotten together.

R. S. MACKINTOSH.

Trapping for Profit

GAME traps, of course, are used exclusively by experienced trappers. They are easily moved anywhere you wish to set them. They are easily secreted in the runways of animals. For general use we recommend the No. 1 or No. 1½ for mink, coon and similar-sized animals. Of course, for beaver, otter and larger game, larger traps are required. It is desirable to provide some way of killing the animals after capturing them. A .22-caliber rifle is exceedingly good for the purpose, as this rifle is small enough not to tear a large hole in the fur.

Always shoot the animal in the head, in the eye or ear if possible. This is much better, because the fewer holes in the skin, the greater its value will be.

There are several rules which may be followed, but many are not true, and this may be for the known reason that furs in the Southern States are not primed as early as in the Northern States. Furs that turn blue on the pelt side after being stretched two or three days are unprimed. When the furs are not prime, one doesn't want to catch any more until the furs get prime. As you know, the value is only about one half as much as you would get for full prime furs.

One thing to remember is to study the habits of the animals you aim to catch. If the den is located, set your trap a short distance from it. Do not set your trap in the mouth of the den, because, if you do and succeed in catching one, it will scare the others, and they are liable to move their den. If there is a spring near at hand, that is a good place for a trap. If the animal visits the trap, you are pretty liable to catch him. The following will be found useful to the trapper: tie a piece of game to butt of a tree, a stump, or on the side of a log. Set the trap directly under it, and cover with fine leaves, dust or grass. Or, take a stick from twelve to thirty-six inches in length, thrust it in the ground a few inches, attach a piece of game to upper end, and secrete trap.

Drive stakes in the ground, forming a circular-shaped pen, leaving an opening in one end of the pen large enough for the animal to get in. If the ground is frozen, build a square pen of sticks, cover the pen with brush, put the bait in the back part of the pen, set the trap in the opening, and cover lightly.

Bait is necessary for each individual animal. Mink haunt streams, being especially active around bridges, culverts and drifts. They feed on fish, birds and all small animals, any of which make good bait. The fresher, the better. Set traps along the edges of streams, two to four inches under water. Bait traps as directed.

Secrete the traps in the runways under roots and driftwood along streams, where the animals are liable to pass. Disturb things as little as possible, splash water over your tracks to remove signs and to kill human scent. Handle all traps with gloves on.

Musk rats haunt streams. They live on fish, frogs, roots, etc. Potatoes or carrots make good bait. Although we do not consider bait necessary, and find the muskrat extremely easy to capture, still one must know how. Trap at the foot of slides and near the water's edge where they frequent.

Carefully sift some wet leaves over the trap. Stake the trap out as far from the bank as the chain will admit, so that the weight of the trap will drown the rat.

A rat seldom remains in the trap very long until he gnaws his foot off and escapes.



After. An average cost of \$12.00 per mile per year to maintain

Opossums haunt both upland and lowland woods and streams. They eat almost any kind of flesh. If decayed, so much the better. A baited or unbaited trap dropped in an old stump or hollow log has often proven effective.

A trap placed in the water's edge with a bright piece of tin proves an effective lure for Mr. Coon.

A. A. RUDOLPH.

EDITOR'S NOTE—The methods of this writer do not correspond in all details with those given by Mr. Allyn, but his plans for trapping are interesting. All of them go to show that there are more methods than one in trapping.

Where the Tile-Drain Pays

THE character of soils is an important point when the laying of tile-drains is considered. At one side of our place here in Wood County, Ohio, the soil is a clay loam, while the opposite side is sandy. A drain of the same depth, size of tile, etc., is more valuable in the clay than in the sandy soil, because it will dry off a much larger region.

We have ten acres of soil especially used for trucking which is tiled about every three and one-half to four rods, and we find this none too extensive. The only trouble is that some are not large enough to carry their water as they should. We find a four or even a four and one-half inch tile most satisfactory and are using only that size now. Our country is well known as the "Black Swamp," and it is through the tile-drain, plus open ditches, that we possess one of the richest tracts of land in the northern part of the state.

R. E. ROGERS.

Campaigning for Good Roads

[CONTINUED FROM PAGE 5]

drains laid wherever they have seemed to be needed. Much attention is paid to drainage, which is, of course, a matter of first importance. For the most part corrugated-iron culverts are used, and the use of these improved culverts has brought about a material decrease in the road tax of the township, while the roads are passable at all times of the year. Some of the roads which formerly could hardly be used at all in certain seasons are now in good condition the year around, the secret of this being that they are given close attention.

There are three supervisors in the township, and the foremen who work under their direction are farmers, who use the drags on the sections of road passing their farms. They are paid forty cents an hour for their work and are not hampered in their methods, being permitted to take any reasonable measures to improve their sections. As a result, there is considerable rivalry, and all the men working on the roads feel a certain sense of responsibility, especially since the improvement has become so marked as to attract wide attention outside as well as within the township.

Perhaps the most encouraging feature of the whole movement, and one in which other communities will be especially interested, is the fact that the cost has been surprisingly small. The estimated cost of maintaining a dragged road in the township is but twelve dollars a mile for a year, notwithstanding that the average cost of maintaining a dirt road in the whole county is forty dollars a mile. There has been a reduction of half a mill in the road taxes, which is now three mills, and the township has a comfortable balance in the treasury.

At the present time there remain but thirteen miles of road in the entire township which have not been dragged. Best of all, other townships in the county have been attracted by the good work and are using the drag, so that within a few years Lancaster County's roads will have ceased to be a reproach. Everyone will be pleased.

History is being reflected in the names of the new great highways. There is "The Lincoln Memorial Road" from Washington to Gettysburg, 40 miles long. Also "The Lincoln Way" from Louisville to Nashville, 150 miles long. And the "Clay-Jefferson Memorial" from Niagara Falls to New Orleans, covering a distance of 1,200 miles.

The good-roads movement will soon be a thing of the past—but that will be when there are good roads everywhere.



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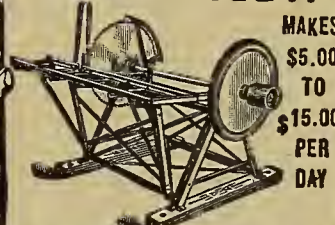
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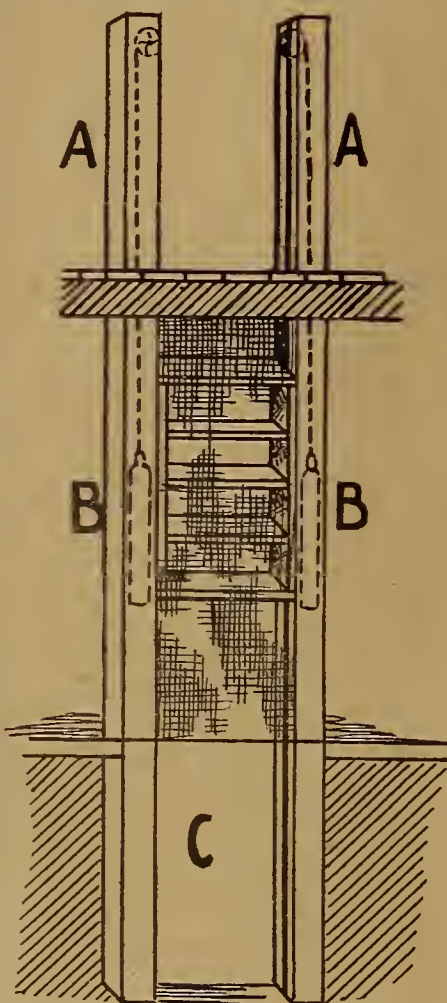


Headwork Shop

Some Bright Sparks from the Farmers' Anvils

Dumb-Waiter

IF YOU have a cellar beneath your kitchen, here is a simple device I have found saves many steps. My waiter is two feet square and has four shelves one foot apart. This is about the right size for ordinary family use. It is framed with two sides open and two solid. The closed sides have strips, one on each side, that move in a groove in a case. These are in the center just opposite the place where the cords are fastened. The case in which the waiter works is one-fourth inch longer than waiter, so as to permit free



movement. The weights (BB), which should correspond to weight of waiter, are in cases (AA) which run entire length of shaft. Two sides of the frame in the cellar are made tight and the other two enclosed with screen wire so that one side will open. There is an opening (C) which extends five feet below cellar floor. When the waiter is lowered, all light is shut out. This device also does away with ice and ice-chests.

MRS. W. D. BOND.

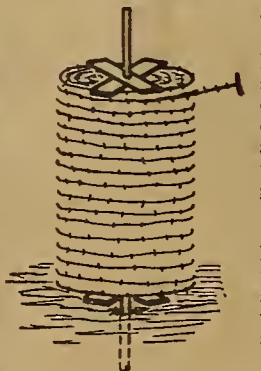
A Two-Man Saw-Buck



THE ends (AA) are made of four-by-fours. Oak is best. They should be three and one-half feet long, with a two-inch jog in each piece, to fit them together as shown in sketch. The jogs ought to be about six inches nearer the top than the bottom. Bore a one-and-three-fourths or two-inch hole at BB for a round four foot long, which will give a forty-inch space between BB, C, D and E are braces one by three inches. This is very handy where one or two men have to saw the wood.

W. M. WALTER.

Stretches Wire Easily



THE handiest and quickest way I know of is to lay the spool of wire down on a little knoll and drive a crow bar or an iron rod through the hole into the ground, then hitch a horse to the end of the wire, and lead him where you want to have the wire stretched. The wire will be perfectly straight.

F. W. BRIARD.

Old, but Good

MY COMPARTMENT mail-and-tool box I consider one of the most necessary adjuncts of the farm. Our work often requires a variety of tools, etc., and quite often, when a distance from the shop, we need what we do not have with us. I have tried to overcome this trouble and have partially succeeded by using this compartment box. The construction can be varied to suit conditions and requirements. I have mine constructed, as in the accompanying diagram, out of one-by-four material and divided into four compartments. In these four compartments I usually have



FIG. 1

four-penny, six-penny and eight-penny nails and staples respectively. My small tools, such as chisels, punches, wrenches and pincers, I put in the compartment that is the least likely to be used in the particular work on hand. On one side at the end I have a leather strap nailed to receive the hatchet (Fig. 1). On the other side I have a strap nailed up and down at one end and a bent pin at the other to hold the saw (Fig. 2). To carry the box, I have a strap nailed from end to end with sufficient slack to make a good handle and at the same time be moved out of the way of any of the compartments.

GEO. F. CRAWFORD.



FIG. 2

One Rat Trap

TAKE a piece of sheet iron three feet wide and four and one-half feet long, and bend it round like A. Rivet the ends together, making the can three feet high, then take a piece of wire netting not too light, cut it round for the bottom, making it a little smaller than the can. Take a piece of wire and bend it round, lay the netting on it, and wire it fast like B. Put this in the can, which forms the bottom; next make the handle.

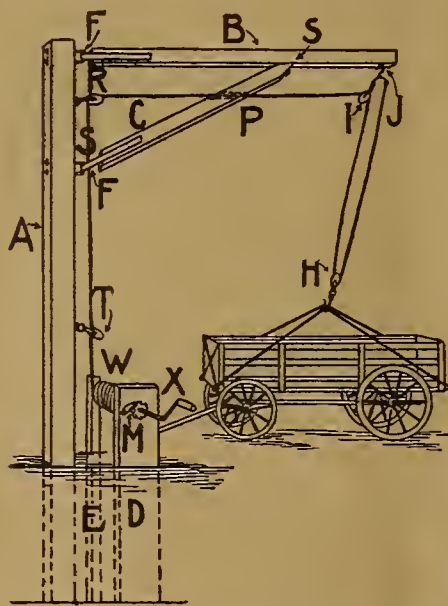
It is well sometimes to take a piece of board, and tack a few strips on it, and stand up like C. Place some ground feed in the bottom, after the can is placed where you wish.

When once the rats get in, they cannot get out. All you have to do is to place it in a tub of water, and the rats are finished.

GEO. E. HEDGES.

Another Rack-Lifter

POST A is an eight-by-eight, sixteen feet long, set in the ground four feet, leaving twelve feet above ground. B is an oak four-by-four, nine feet long; this is hinged at one end of the post A at F. Hinges are made of three-quarter-inch rod and heavy two or three inch by half inch strap iron. This is braced from three feet below top hinge at S, five feet out on arm at S, with another oak four-by-four. This is notched and bolted into arm at S. Another hinge is bolted to brace at F. At outer end of arm, four inches from the end, an eye is bolted into the arm. This is for the hook at J.



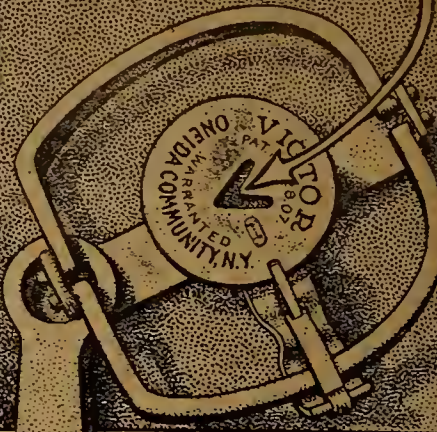
From this hook there is a V-shaped iron with an eye in each end, one for the rope and the other for the pulley (I). The rope should be three-quarter-inch stuff. It first fastens at J, then goes down to pulley (H), which has a hook for lifting the ropes that are fastened to each corner of the rack by other hooks. This rope could be one-half inch. The rope then goes back to pulley at I, then through brace, where a one-inch hole is cut through in line with pulleys at I and R; then run down through hinge, where the strap iron spans the brace; down through pulley at T, which is to keep rope in line of the windlass when arm is turned; then through hole in windlass, where the end of the rope is fastened. The windlass is made of a six-inch post, with shaft flattened and driven into each end. The crank end may be bolted to hold it more securely.

For the windlass posts one two-by-six (E) may be used, and one two-by-twelve (D). This last one must be wider, as the dog and clutch are fastened at M. The crank should be about two feet long. With this lifter two hay-racks can be handled. R. F. WILLIAMS.

Care for the Hay-Rack

FROM an old binder take the winding-gear which is used to raise and lower the binder. Leave this fastened to the axle of the master-wheel. Then procure a piece of one-and-one-half-inch gas-pipe about twelve feet long. Bore three holes through the pipe, one close to one end, and the other about

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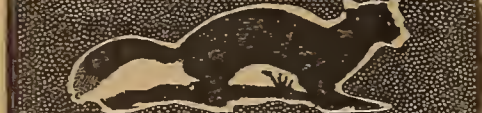
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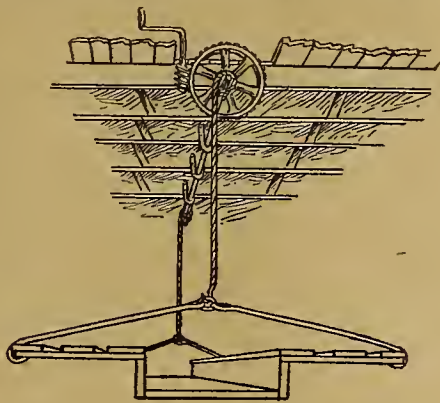
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two feet from each end. Insert axle of winder in end of gas-pipe, and run a three-eighths-inch bolt through, to fasten it securely. Bolt two pieces two inches by two inches by two feet long on each side of gas-pipe at other holes. This is for rope to wind on, and by putting on these pieces it raises faster. It is now ready to hang. Make two brackets (depending on what you have to



fasten to) eight or ten inches long, slip these over the pipe, and nail to supports or rafters. Tie a rope around the blocks so it won't slip, and fasten a small hook to lower end. Make two pieces the width of rack or a little longer. Put a hook on both ends to hook under the sides of the rack. I made mine out of iron rods, but chain will do. Hook the rope to rings in center, and turn the crank. It will not slip, and will stay any height, as the worm gear on winder holds it solid.

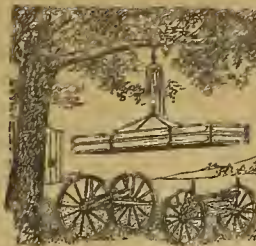
W. E. BAUER.

Wheelbarrow and Handcart



THIS side-view illustration makes plain the construction of a combination wheelbarrow and handcart which is easier to load and unload and which holds more than the ordinary

Save Your Back



in the sun to dry. It is easily lowered on the truck at any time. WILLIAM GANGER.

Easily Made Device

HAVING used many devices for hanging up hogs at butchering time with more or less success. I would advise those of like experiences to try this plan, which I have found the simplest and easiest.

Take two pieces of two-by-three-inch scantling seven feet long, and make a ladder by nailing on five three-by-one-inch strips twenty-eight inches long. Let the first strip come sixteen inches from the end. Now you have a ladder seven feet long and twenty-eight inches wide. Saw a notch in the ends of the two-by-three pieces for the gambrel to rest in. When the hog is ready to hang up, place the ladder on the platform and roll the hog onto the ladder, belly down. Place the ends of the gambrel in the notches of the ladder. By taking hold of the sides of the ladder, carry the hog to where you want to hang it.

Place the head end of the ladder on the ground, tip up the back end, fasten the gambrel, and take out the ladder.



Step-Saving Schemes

"Make your head save your legs!" This is the rule of the good "chore-boy"—the brainy fellow who always has his work planned so as to do something "going and coming." When he carries out a pan of ashes, he brings in an armful of wood. When he hauls out a load of manure, he draws off a load of stone. He tries always to kill two birds with every stone he throws.

The woman who saves steps is the one who can sit down once in a while to rest. She never crosses the room without making the journey count. When she goes upstairs, she takes up something that needs to go, and she uses the downward trip to push the work along.

The farm planned along such lines is an easy farm on which to work. The barns are "handy." So is the house. Those who so plan "make their heads save their legs."

This is real headwork. We have had some of it in this shop, but not enough. Let's have more "step-savers." Send in the other knacks and kinks, but all ye people, men, women, girls and boys, who have used schemes for making brains save feet, get into the columns and tell us about it. If it can be illustrated, send a diagram or drawing. If it can't, or if you can't draw, send it, anyhow.

A lot of people have got nice, crisp five-dollar bills out of this column—and helped their fellow men and fellow women, too. There's a "V" for you if you have any of the best three ideas. Anyhow, there's pay in space rates and in the pleasure of doing good. Come on with your step-savers!

wheelbarrow. Secure two old wheels from a cultivator, planter or any discarded farm or garden implement, and make for them an axle of a round pole, three or four feet long, or, better, a two-by-two-inch piece of stout scantling; round down ends of axle, and put on iron thimbles, or leave square, and use iron gudgeons of some sort. Mortise two pieces of scantling or poles across axle near wheels; nail crosspieces on these in front and rear of wheels. Put on a floor of old barrel-staves, of sound material, supporting staves on front and rear crosspieces. Use two old plow or cultivator handles, bracing them by the legs of cart as shown; the pitch of the handles may be made to suit operator and height of wheels. Very heavy material need not be used to make this cart, just so it is sound and the parts carefully put together.

J. G. ALLSHOUSE.

The Short Oats Saved



AS THE reel of the binder would not run low enough to take the short oats off the guards, I made small brushes of the tops of a common shrub in southern Missouri, fastened them to the reel with fine wire, placing half the brush on each side, and bringing it together at both edges of the board, and wrapping firmly. I let the wire extend from one brush to another and to a nail in each end to hold all in place. I put them on three of the reel boards, alternately, and it did the work. I have never used anything more satisfactory.

J. R. CLAYTON.

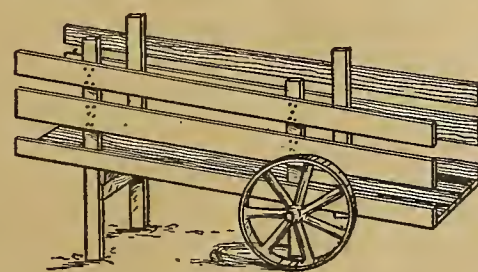
A Dry Cellar

OUR cellar walls are made of rough stones; boulders laid in common mortar. A good drain runs around the outside of the wall. When the concrete floor was made, a gutter was made around the inside cellar wall. This gutter will keep the cellar dry, and keeps the water from running over the floor, if any water should happen to get into the cellar.

GEORGE BOND.

Hog-Chute on Wheels

THE sketch shows a handy hog-chute on wheels which I have used for several years. The uprights are of two-by-fours, five feet high for upper end and four feet high for lower end. The five-foot ones are placed one and one-half feet from end of chute, and the four-foot ones are placed three feet from end. The floor is one-inch oak lumber two and one-half feet wide inside, and is nailed on two-by-fours, which are



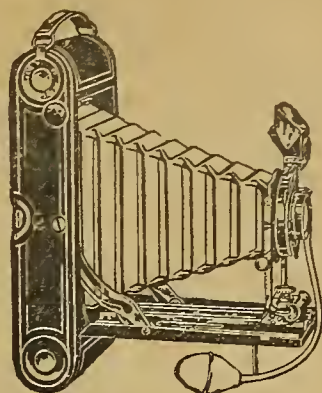
spiked to the uprights two feet six inches from bottom of uprights to floor at upper end, and at lower end fourteen inches from bottom of uprights to floor. One-inch boards are nailed underneath the two-by-four where the floor is on. Cleats are nailed on floor to keep hogs from slipping. The wheels are from an old corn-planter, and the axle is from an old cultivator arch. The arch is fastened under the floor with wire. This hog-chute can be handled easily by taking hold of upper end. You can shove it wherever you want it, and if it is any distance, just hook it behind a wagon, and it will come along.

JOHN D. WALTER.

Headwork Winners

October 25, 1911

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Photography is both simple and inexpensive now; Kodak has made it so. Kodak cameras from \$5.00 up, and the Brownie cameras (They work like Kodaks) from \$1.00 to \$12.00, offer a wide variety. Even the little dollar Brownie makes good pictures and is so simple that a kindergarten child can work it. The \$2.00 and \$3.00 Brownies are practical little cameras, while in the Kodaks themselves, one may find that efficiency which comes in a perfectly equipped factory, where honest workmanship has become a habit.

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are the best. If you want to protect your horse against accidents consequent to icy streets and roads get a RELIABLE calk that will wear sharp and will not break or drop out of the shoe. That is the RED TIP. The only genuine Neverslip Calk has a RED TIP to guard you against inferior imitations.

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AGENTS

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Makes a neat, durable repair and quickly, too. Has a diamond point grooved needle, a hollow handle, plated metal parts, a shuttle, and a bobbin holding 24 yds. of best waxed linen thread. No extra tools needed. Can be carried in the pocket. Special discounts to agents. S. Perrine says "Sold 9 on way home with sample." W. Spenser writes "Sold 11 first 4 hours." Reg. price \$1.00. Complete sample with 1 large, 1 small, 1 curved needle, a shuttle, and a bobbin of thread sent postpaid for 60c., 2 for \$1.00. Get one, keep it a month or so, send all your Harness, etc., and then if you are not satisfied return the Awl and we will refund your money. Send quick for sample and instructions.

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I have started more breeders on the road to success than any man living. I have the largest and finest herd in the U. S. Every one an early developer, ready for the market at six months old. I want to place one hog in each community to advertise my herd. Write for my plan. "How to Make Money from Hogs." G. S. BENJAMIN, Masonic Bldg., Portland, Mich.

Big Ben



**Merry Christmas! Here is Big Ben.
May he wish you many of them!**

Don't waste a minute of this merry day. Have the presents ready Christmas eve. Hang each stocking up. Arrange the presents that won't go inside in little piles around each stocking.

Then, when all have gone to sleep, sneak into each bedroom a jolly-faced Big Ben.

He'll ring the merriest Christmas bell you have ever heard and get the family down to see the presents bright and early so the whole day will be yours to fully enjoy.

Big Ben is a gift worth the giving, for he is a clock that lasts and serves you daily year after year.

He is not merely an alarm clock—he's an efficient timepiece—to

get you up or to tell the time *all day*—a clock for bedroom, parlor, library or hall.

Big Ben stands seven inches tall. He's massive, well poised, triple plated. His face is frank, open, easy to read—his keys large, strong, easy to wind.

He calls you every day at any time you say, steadily for ten minutes, or at repeated intervals for fifteen.

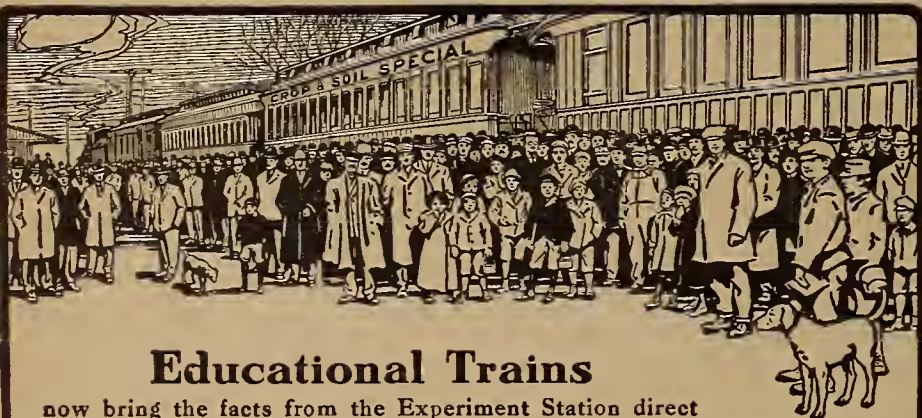
He is sold by jewelers only—the price is \$2.50 anywhere.

If you cannot find him at your jeweler's, a money order sent to his designers, *Westclox, La Salle, Illinois*, will bring him to you express charges paid.

Do You Want to Be Well Dressed?

IF YOU DO, the best way to accomplish it is to use WOMAN'S HOME COMPANION patterns in making your clothes. Aside from being inexpensive, easy-to-use patterns, they are the sort of patterns that give a distinct air of smartness and up-to-date-ness to the garments cut from them.

They can be quickly delivered to you if you will only send your order to the Pattern Depot nearest your home. The patterns cost ten cents, and the pattern depots are: **Pattern Department, Farm and Fireside, 381 Fourth Ave., New York; Pattern Department, Farm and Fireside, Springfield, Ohio, and Pattern Department, Farm and Fireside, 1538 California St., Denver, Colo.**



Educational Trains

now bring the facts from the Experiment Station direct to the Farmer.

The Experiment Station men are anxious to discuss the questions of most value to the people along the routes. Ask them to bring along an exhibit of fertilizer materials and to tell you how to get the most plant-food for your money.

Recently one train gave demonstrations of actual fertilizer mixing. Soon many will do so. Take your fertilizer dealer to these trains. Ask him to sell **Potash Salts** and brands containing six to ten per cent. Potash.

We shall be glad to send you, free, pamphlets prepared by the best practical authorities on fertilizers for various crops and soils. Write today, mentioning crops and soils that you wish to improve.

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Crops and Soils

Soy-Beans

I HAVE tried soy-beans in a small way several times. While I usually got a fair growth, an examination of the roots showed very few nodules upon them. Several years ago I tried soy-bean bacteria culture furnished by the Agricultural Department at Washington with no better results, so I had about decided that this crop would not develop nodules in my soil. However, I decided to try it again, so I procured some seed of an early yellow soy-bean and also of a later yellow variety from T. W. Wood and Sons, and requested that they inoculate the seed. Instead of inoculating the seed, they recommended that I manure the soil well, so about June 1st I broadcasted stable manure over my ground where I had selected to plant soy-beans, plowed it, then I broadcasted acid phosphate at rate of about four hundred pounds per acre over the ground, and harrowed it in. The soy-beans were planted in drills, and in spite of the extremely dry season made fair growth. The plants bore very full of well-filled pods, and to my surprise the roots were very well covered with nodules. The soil was not very fertile before the manuring. The nodules were very large, almost as large as full-grown soy-bean seed.

I am saving seed and will try them again next year. **A. J. LEGG.**

What About Arkansas?

Some Comments by a Farm-Management Authority

A READER of FARM AND FIRESIDE near Gotebo, Oklahoma, seeks information about government land in Arkansas. Here are some of the specific questions asked: "Can a man clear land easier than twenty or thirty years ago? Will goats help in clearing land? How do stump-pullers work, and will I need heavy teams to operate them?"

The work and expense of clearing land varies so much with the amount and size of the timber that it is difficult for one to give definite advice. Undoubtedly one can clear land easier to-day than did our forefathers, but the methods to pursue will depend upon local conditions.

If there is considerable underbrush, goats may be used to advantage, but, unless a man is experienced in handling goats, it may be difficult for him to buy a sufficient number to clear any sized area, and then handle them so as to realize a profit, especially if he is to keep them only a short time. Goats will require a five to six foot woven-wire fence to hold them, and even then he should have the posts and braces on the outside, to keep them from climbing the fence.

If stumps can be left three or four years and allowed to decay, the problem of their removal will be much simplified. During this time the land can be used for pasture. If the stumps are very large, it will probably be necessary to dynamite them. Moderate-sized stumps can be handled with a stump-pulling machine. Usually there is sufficient leverage, so that one good team will handle the machine.

Since our correspondent is limited in capital and is going into a new country, under new conditions, would it not be advisable for him to consider the advisability of working out for a year, either for wages or as a tenant, before purchasing land?

This will give him time to get in touch with the new conditions, see how the progressive farmers in that community are handling their land, and at the end of the year will have valuable experience that has cost him but little. During this year he will also have time to investigate a number of farms that may be for sale and choose one that will meet his needs more economically than by buying at once upon the glittering representation of real-estate men.

D. H. OTIS.

Leave the stumps on cabbage for storage, hanging a few of them head downward in the root-cellar, where they will keep nicely and be much handier for the cook than if buried in a pit.

New Land on Old Farms

HORACE GREELEY's advice to young men of his time, "Go West," was good advice; a great benefit to the young men and to the West. But that was many years ago. The eminent journalist and theoretical farmer has passed on. Many of the young men are now old. Some of them have come back East and have found conditions equal, if not superior, to western life.

Many of the cultivators of the so-called "played out" New England farms have discovered mines of wealth which until recently have been unworked, undeveloped. The old-time farmers plowed their sandy hillsides, using what manure there was made on the farms, and succeeded in raising a little corn

and hay. They kept a pig or two, a horse and two or three cows. They raised little or nothing to sell, and had a hard struggle to pay their taxes. To-day, the farmers are letting their hills grow up to pines and birches, or else are raising corn for ensilage, and are draining their swamps.

The accumulation of countless ages is now being drawn upon for rich plant-food. Such land, loosened up to the sun and air, and sweetened, is wonderfully productive. Strawberries, cranberries, onions and, in fact, all kinds of fruits and vegetables can be raised on well-drained muck land, well limed and cared for. Thousands of acres of such soil are paying big dividends. It is virgin soil, and is simply waiting for a chance to be fruitful.

WM. F. HENDERSON.

Why Did the Drought Hurt?

[CONTINUED FROM PAGE 4]

other after-work so as to get the greatest benefit from rain and snow, freezing and thawing. This, of course, does not apply to the regular dry-farming country.

Now to get the biggest dividends on the deep plowing it is advisable to plant such crops as demand a very deep, mellow seed-bed. Chief among these are potatoes and sugar-beets. If a field is to be deeply plowed only once every three years, the rotation should be something like this: Potatoes, beets or other root crops. For the second year, corn or cane or other cultivated crops would be preferable. Small grains, flax and grass demand a firm but mellow seed-bed and would be good crops for the third year. However, if the order were reversed, the results might indicate that deep plowing was a mistake.

Therefore, if deep plowing has not proved successful in your community, do not consider it a failure, but find out how, when and where the deep plowing was done, how the land was prepared for crops, what crops were planted and how they were afterward tended. A conscientious study of these things will undoubtedly disclose something radically wrong. One of these days, how to tell about preparing the deep-plowed ground for a crop and how to tend it after it is planted so as to make a good crop in spite of drought, or make a bumper crop if that boggy drought begins to look like the weather did in the days of Noah, will be a knowledge much to be desired.

A Phosphate-Potash Fertilizer

I AM asked how to mix a fertilizer that will analyze eight per cent. phosphoric acid, four per cent. potash and no nitrogen.

Mix six hundred pounds of acid phosphate that carries sixteen per cent. available phosphoric acid with one hundred pounds muriate of potash that carries forty-eight per cent. potash (on a large scale, six tons of the acid phosphate with one ton of the muriate). This will give the ratio of eight per cent. phosphoric acid to four per cent. of potash as required.

In order to make the application of three hundred pounds per acre, mix six hundred pounds of sifted dry earth "filler" with each one thousand two hundred pounds of the mixture, or else reduce the quantity of the application without using any filler.

B. F. W. T.

The Cost

Who pays for the advertising, is a question frequently asked.

You do—and you don't. Of course, all costs connected with the manufacture and sale of goods is borne by the consumer. If the expense of manufacturing articles in small quantities necessitates selling them at, say, thirty cents each, the consumer must pay that price. But, if by advertising the goods extensively so they can be made and sold in large quantities at twenty-five cents each, the consumer profits by five cents on each purchase.

Therein is where you don't pay the advertising bills, this is what occurs in well-advertised goods.



The FARMERS' LOBBY.

THE President of the United States is widely regarded as rather the most important person here. Maybe that is just a state of mind into which we jolly ourselves because we all have something to do with making him president. Perhaps J. P. Morgan or John D. Rockefeller or Seth Low or Lew Shank is the most important person in fact, but we rather cling to a prejudice in favor of the President. William Howard Taft therefore has all comers distanced at this time.

When we first elected presidents in this country, we didn't elect them at all. Odd? Yes, a bit; but there are a few people still living who can remember when the electoral college was taken seriously, and it was supposed to be commissioned by the people to elect the president. It never really assumed to do that. Still, it is worth while to remember this:

Who Will Be President?

IF THE Democrats next year should nominate for president Judson Harmon;

And if the Republicans should nominate Mr. Taft;

And if the Socialists should nominate Eugene V. Debs;

And if the Prohibitionists and Suffragists and all the rest of them should nominate whoever they pleased;

And if then the electors in the electoral college should cast a majority of their votes for Lew Shank—

Why, Lew would be president, and there would be no stopping it. We could appeal to Congress and the Supreme Court and the powers of daylight and darkness till we were hoarse, and they couldn't do a thing for us. The electoral college is entitled to elect the president; nobody ever suggested another arrangement; nobody has proposed to amend the constitution; the deal stands just as the revered fathers fixed it, and the electors can start something any time they like.

With telephone-poles so handy as they are nowadays, and with the cordage trust still leaving rope within the means of the very rich, it isn't likely the electors will try such a thing. But still they could do it, and get past with it unless we wanted a revolution.

The fathers, bless 'em, couldn't get over the feeling that a president was going to be a king for four years. They just couldn't bring themselves to realize that the plain folks were good enough and wise enough to vote for him. So they provided for the electoral college, with the impression that the presidential office would be a bit more sacred, a trifle more aloof from the common touch, if a special aristocracy were created to choose the president. It was an inheritance from the "good old days"—which weren't at all good—when the nobles used to get together and choose a king in case the processes of propagation in the royal household hadn't produced one.

But, pshaw! It wasn't worth while to attempt hitching such a relic of monarchism on a people that had started out to be democratic. The people of the United States never did stand for having the electors choose a president. They left the electors there, and took the power away from them. To-day they are merely the sign and guarantee of the intent that the states shall vote for president in proportion to their representation in Congress.

The people don't want an electoral college to stand between them and their president. And it doesn't, either.

Is He the People's President?

TO THIS point, the job of making the president a real people's president has been handled handsomely. But after they got the electoral college duly hamstrung, the people lost interest. As a result, a new institution has arisen, which was never contemplated by the constitution, and is not in any wise recognized in law, or known in any other first-class country, that practically gets between the people and the making of their president. This is the national political convention.

You may say that the national convention represents the voters of the party; but does it? If the convention of 1880 represented the voters of the Republican party, somebody ought to have been able to guess in advance that James A. Garfield would be nominated. The fact is that not one delegate had been sent there to vote for Garfield, yet he was nominated. In 1888, by the same token, if the Republican national convention was representing the people, somebody ought to have been able to guess that Benjamin Harrison would be nom-

The Farmers' President

By Judson C. Welliver

inated. But the man who to-day will seriously claim that he knew Harrison would be nominated, would make a bad case before a lunacy commission. Same in 1896 with the Democratic convention; the only man who suspected, in advance, that Bryan would be the nominee appears to have been Mr. Bryan. There is authenticated record that Mr. Bryan confided to some friends, while he was reporting the Republican convention at St. Louis a few days before the Democratic convention met in Chicago, that he expected to be nominated for president! The friends to whom he made the confession regarded him as mildly crazy, and when they tell about it in these later years they are commonly looked upon as unmitigated liars. But I guess it is a fact that Mr. Bryan, loaded with that "crown of thorns" speech and inspired with a conviction that he understood the psychology of the Democratic gathering, actually did foresee that he was going to be a serious factor in the convention that made him its nominee. These instances are merely by way of showing that, while the people have taken the president-electing job out of the hands of the electoral college, they have given up the president-nominating function to the national conventions.

The national convention represents, not the people of the states, but the political organizations. It is sent to vote for the nominee whom the managers and manipulators for the dominant faction want supported. There are endless devices for getting delegations to vote for one man, on pretext that they will be for another. The "favorite son" dodge is one of the best known of these. Broadly speaking, eastern states commonly don't know for whom their delegations are going to vote at the show-down; it isn't supposed to be a part of the business of the people to bother about such things. The people are expected to vote for the nominee the convention graciously gives them. That is about all for them.

The Big Job

BUT is it enough? The people nowadays nominate their candidates for other offices, in most states, by direct primaries. Why not for president as well? If the presidency is our biggest, most important office; if it is so important to the people that they have abrogated the constitutional power of the electors to choose the president; then why do the people not claim the power to nominate their presidents, as they nominate their congressmen and senators and governors and coroners and county treasurers, by direct primary?

When you put it that way, it's rather hard to explain, isn't it? One answer would be that the people aren't smart enough to nominate for such a big office; they must turn over that supreme function to somebody else. Maybe that's so, but I wouldn't want to run for president on the platform that "the people aren't smart enough to elect a president."

Another answer is that the national convention has been doing this business so long that it has become accepted as proper, and it would work on people's nerves to try to change the method. That was the strongest argument in favor of continuing as subjects of George III., but it didn't carry the country in the 1776 campaign.

After submitting this question to various people who couldn't produce an answer that was real fillin', I have decided for myself that there isn't any reason why presidents should not be designated by popular expression of the people. When a delegate goes to a national convention, he ought to be for somebody in particular; if that somebody can't be nominated, he ought to know whom his people prefer as second choice. He ought to be representing his constituency, not his own interest in the job of internal revenue collector or postmaster.

By the way, wouldn't it be interesting to know how many delegates to the national convention of 1908, say, are to-day holding government offices? I think I'll try to get a census of 'em made. It would be about the best summary of this whole case possible.

That's a digression. The present fact is that people in many states are asking themselves why they should not nominate their own candidates for president. In several states they have passed laws to provide for

presidential-preference primaries; that is, primaries in which the voter will choose his delegates as to-day he nominates his candidate for county attorney, and also instruct the delegates for whom they shall vote for president.

Only five states have, to date, such laws. They are Oregon, North Dakota, Nebraska, Wisconsin and New Jersey. In detail, the laws are not uniform, of course; but in general they look to a primary election of delegates, and instruction of the delegate as to his choice for president.

In addition, South Dakota has a plan of electing national delegates in the primary. The scheme is such that the voter can vote for the entire ticket of delegates at once, and indicate the name of the presidential candidate he wants them to support; and the delegates are presumed to heed the instruction given by the plurality of voters. That is equivalent in effect to the regular legalized presidential primary.

California Progressives

CALIFORNIA's progressive legislature will shortly be called in session by Governor Hiram Johnson, to enact a presidential primary law for that state. Johnson is a La Follette-for-president shouter, and the present controlling forces in California are for La Follette. In addition, these California progressives have already authority to select a delegation to the national convention, through a state convention that was elected in 1910. If that convention meets again and selects delegates, they will all be for La Follette.

But the La Follette people in California are good sports. They have the state's delegation cinched, ribbed up and copper-riveted. But, they say, it isn't fair to make the people stand for a choice made in 1910. They might want to change their minds. So the La Follette people themselves propose to enact a presidential primary law and hold a primary under it, just to show how fair they can be, and how confident they are of their hold on the state.

In Kansas and Michigan agitation is afoot for special sessions of the legislature to enact presidential primary acts. Governor Osborn of Michigan has declared for the plan, and it is expected a session will be held in that state and such a law passed.

In Massachusetts Governor Foss, just recently reelected, is drafting a presidential primary act, with a lot of good non-partisan, or bi-partisan assistance, and this will be sent to the legislature which meets in January with an urgent demand that something of the sort be passed. It is reported from Massachusetts that there is a very fair chance of such a measure passing. In that case the delegations to both national conventions will be selected under this plan. The La Follette people insist that they will split Massachusetts, and the Wilson crowd say they will get the big end of the state's delegation to their convention, if the popular primary plan goes.

Iowa and Minnesota Republicans are demanding that, as their legislatures will not meet this winter, their state committees ought to get together and adopt resolutions providing for such primaries, in unofficial fashion. That would make the primary the party law, but not the state law. The same agitation is pressing in other states. In the South some of the states which have not heretofore provided for primaries on the presidency, are moving in the same direction.

The Administration Viewpoint

IN MONTANA the governor recently declared that he would call a special session of the legislature to pass such a law, provided he could be assured in advance that there were votes enough to carry it. He didn't want to involve the expense without assurance of results. Last winter such an act passed the lower house with a comfortable majority, but failed in the upper. Four more votes were needed to pass it.

Out in Washington the sentiment for a presidential primary law is overwhelming.

The administration forces, however, are showing no disposition to accept. Their position, of course, is that they feel secure in getting the nomination under the present plan, and they can't see why they should change the rules and play the game the other fellow's way. That is quite the way of politics.

But I ween, however, that the presidential nominees of 1912 will be the last ones who will be nominated by any other than the presidential-primary plan.

Last-Minute Christmas Gifts

With Helpful Suggestions for the Busy Woman

By Evaline Holbrook



This bag costs about seventy-five cents and can be made in two hours

JUST before Christmas those of us with whom cash and time are not plentiful are apt to bemoan our inability to show our affection for our friends in a substantial way, entirely overlooking the fact that the neat needlewoman, with artistic appreciation, can develop, at little expense of either time or money, gifts that would be costly indeed if bought in the shops. It was with the needs of busy women in mind that the various articles on this page were prepared. Here are gifts suitable for the young and old of both sexes, and not only suitable, but beautiful and costly in appearance.

In making a gift the first points to consider are the needs and the tastes of the recipient. It is these points which make

grandpa's gift such a troublesome one. There is so little he likes and so much less that he wants. All he desires is to take his ease in the big armchair in the sunny window. For him the head-cushion in our picture would be an acceptable gift. Its shape is new and it may easily be copied by the needlewoman. The width should be that of the chair, with a center depth of about one half the width. The cushion should be stuffed with cotton and covered with cretonne or some other washable material, and the edges finished with the narrow cotton fringe sold in upholstery departments. The hanging cord, with which the cushion is fastened to the chair, is also of cotton.

A gift which a younger man or a college boy would appreciate is the twin bags for soiled handkerchiefs and collars and cuffs. Cretonne is used, and a tube fifteen inches long forms each bag, the bottom of each gathered together under a square, cretonne-covered button-mold, and the top hemmed over an embroidery-hoop. These hoops are about five inches in diameter. Because a pair of hoops is used, one bag is of necessity slightly smaller than the other, but this slight difference does not show. When the bags are finished, they are joined with a few stitches on the hoops, then the hanging cords are put in place. Fine white silk cord is used and crocheted in chain stitch. The chains are fastened over the joining stitches of the hoops, knotted together at the center as the picture shows, then the other ends fastened to the outer sides of the hoops.

Nowadays smart femininity everywhere is carrying a wonderfully gorgeous and artistic bag—if it can afford it. The trouble is that, much as we desire them, most of us cannot afford the bags. What more lovely then, as a gift for the young girl or the young matron, than the bag shown in our picture, which costs little more than fifty cents? The bag is made of a grayish brown, silk-finished burlap and is lined with cretonne in a quaint design in cream color, green and burnt orange. The edges are bound with upholsterer's antique gimp in dull gold, gold buttons are used, and the buttonholed loops are of green rope silk. The bag is made of a strip twenty-one inches long and eight and one-half inches wide. The straight end is folded up for seven and one-half inches, to form the pocket, and the flap closes over it. The hanging strap is of burlap. A strip two inches wide and twenty-eight inches long is cut for it, it is doubled over on the width, the edges turned under, then the strap stitched on both sides in dull-gold thread.

Of course, any other materials may be substituted for those suggested, and indeed in many cases the patch-bag will furnish strips that can be used. The important thing is to have the selection artistic. The unusual must stamp the materials used. Quaintness and smartness are essential, if the bag is to be a thing of beauty, the finishing touch to a lovely costume. Grandma would like the crocheted work-bag shown on this page. It is made of silkateen in any color one chooses. A green bag lined with pink silk is lovely, and so is lavender and white, but the thoughtful thing is to choose grandma's favorite colors. The bag is begun at the center of the bottom and is worked by the following method:

Ch 8, join in a ring, *ch 8, catch in the second stitch of ring, and repeat from * until 4 ch loops have been made.

Second Round—Ch 8, work 6 s. c. in the first loop, *ch 8, 6 s. c. in the next loop, and repeat from * in each of the next 2 loops.

Third Round—Ch 8, 6 s. c. in the top of the first ch loop of preceding round, 1 s. c. in each of the next 3 s. c. (picking them up on the double thread), and repeat from the beginning to the end of the round. Continue to work round and round in this



For the new baby is this cap made of half a yard of wide embroidery

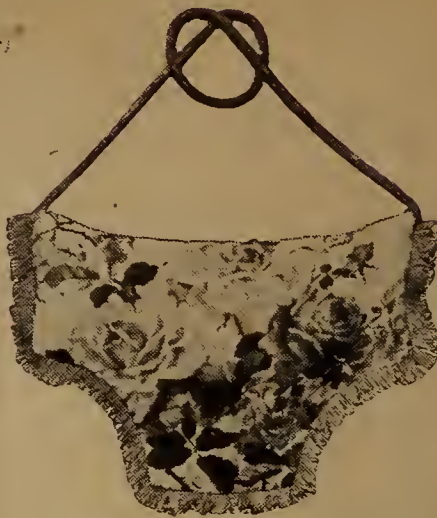
manner, always putting 6 s. c. in the top of each new loop and omitting 3 s. c. at the end of each series, until there are 14 rows of loops.

Open Round—Put 1 d. c. in every third stitch all around, 2 ch between. Make 3 rounds all single crochet, on them increasing to keep the work flat. This completes the bottom of the bag.

For the sides of the bag, which are crocheted in knot stitch, continue as follows: *Pull the loop on needle up about half an inch and ch 1, keeping the new loop very short. Another thread now has been added to the first long loop. Beneath this new thread pick up another short loop, then draw through both loops on needle. Repeat from *, catch in the third stitch of the last bottom round. Make this same loop all around, always catching in the third stitch. When the round is completed, draw up the loop on the needle, catch in the center of the first loop of first round, and repeat the first round, always catching in the center of each loop of the latter. Continue in this way until 13 rounds in all of knot stitch have been made.

First Round of Top—Make 1 s. c. in each loop of preceding round, ch 5 between the s. c. Make 5 rounds of 1 s. c. in each stitch, picked up on the double thread, then an open round for the drawing-strings, worked as follows: Make 1 treble crochet in every fourth stitch of preceding round, ch 3 between. Join at the end of the round.

For the heading now *ch 10, catch in the fifth stitch of preceding round, and repeat from * to the end. Make a second round of ch loops, catching in the center of the loops of the preceding round, and fasten off. Line the bag with silk or some other thin material. New babies always need caps, and nothing could be more charming, more easily made,



Grandfather would like to have this head-cushion for his armchair. Its design is new and very comfortable



This side frill is made of one linen handkerchief cut in two. It is edged with the fashionable filet lace plaited in inch-wide plaits and tacked to a strip of the same kind of linen



Half a dozen holders for kitchen use, made of prettily colored materials, and tied together with ribbon



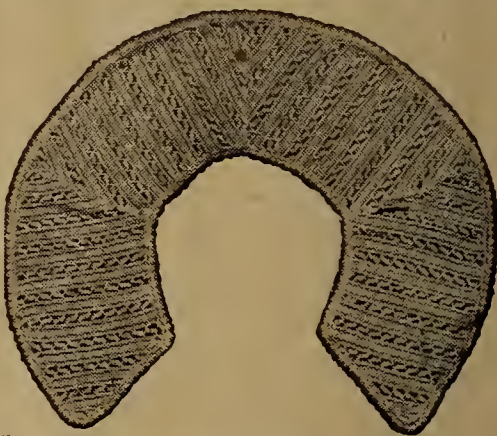
A crocheted work-bag would be an appealing gift for grandma. It is made of delicately tinted silkateen and lined with a contrasting color



These twin bags make an attractive gift for a man

When finished, the collar looks like real lace, and washes better. And what housekeeper would not appreciate half a dozen holders for kitchen use, and, if tied together with baby ribbon, what would make a more attractive-looking gift? The holders should be made of varying sizes and of different materials, always keeping in mind a definite color-scheme to give pleasure to the eye when they are tied together. The materials should be washable, and the holders thinly lined with wadding.

Side frills belong to no age. The young girl wears them gladly and so does her grandmother. Nothing would be nicer as a gift from one woman to another. The frill on this page is simply made of a handkerchief rather large in size. It should be cut diagonally across from the center of one side to one of the corners of the opposite side, then the two half sides overhanded together, giving a long strip the full width of the original handkerchief at one end and pointed at the other end. The lace is sewed around the hemmed edges of the strip. It is put on plain and has a mitered corner.



Dutch collar made of three kinds of Honiton lace braid overhanded together. The collar is easy to make, dainty and expensive-looking

A very pretty scissors-case is made by covering pieces of cardboard, cut to fit a pair of scissors, with cretonne. Allow an extra piece, joined with the back, for the overlap. Cover the outside first, allowing enough to turn over the cardboard all around. Then lay the lining in place, and overhand to the outside material on all the edges of the cardboard.

A very pretty scissors-case is made by covering pieces of cardboard, cut to fit a pair of scissors, with cretonne. Allow an extra piece, joined with the back, for the overlap. Cover the outside first, allowing enough to turn over the cardboard all around. Then lay the lining in place, and overhand to the outside material on all the edges of the cardboard.

A Collar Easy to Make

By C. Ida Ferris

THIS collar differs from the usual Dutch collar in that it is pointed in the back. On the strip of batiste between the insertion and the edging a row of plain white dots have been embroidered an inch apart. In the pointed portion of the batiste just above the insertion a design consisting of a cluster of dots has been arranged. All the sewing has been done by hand. No pattern is needed for this collar.



Collar of Valenciennes, batiste and embroidered dots



Frill to match collar

Side Frill to Match

By C. Ida Ferris

THE side frill matches the collar. Side frills, as you know, are very fashionable. The frill is twenty-four inches long, six inches wide at the top and two and one-half inches at the bottom. There are two rows of insertion with the dots between them. The plaits are one-half inch deep. A frill made this way is very easy to launder. Like the collar, all the sewing is done by hand. No pattern is needed.



Christmas in the Country

By Alice M. Ashton



AT NO other place can Christmas be made quite so delightful as in the country home. For, no matter whether "times" chance to be "hard" or otherwise, there is always an abundance of greens for decorating the house, plenty of fuel for cheery warmth, and provisions for a bountiful dinner.

"But," I hear many country girls complain, "there is never any money!"

True, in the light of what often comes into the town home, there seems a dearth of money on the farm. But just consider, dear girls, what your town friend and her father have to use that money for, which you have freely, with never a thought. Think of the rent, the fuel, the provisions, the car-fare and carriage-hire, and a dozen other expenses—there isn't usually much left for the Christmas giving with the town cousins, either!

I wish every country girl might feel like one I know.

"Whenever I am perplexed," she says, "I just put on my things and go for a walk across the farm, along the brook and through the woods. In nine cases out of ten the walk solves the difficulty."

And the farm will solve the Christmas difficulty, too, if you will give it a chance.

Here is how some country girls have found their Christmas presents almost "without money and without price":

A girl with many friends and relatives in the city gathers a quantity of greens from her own woods each year, and sends them each a generous box—laurel, fragrant cedar and balsam, and ground-pine. The expense of sending each box is about twenty-five cents. She sends them early enough so that they may be used in decorating the home. Only the modest city dweller, who must pay a quarter for a tiny bunch of holly, can fully appreciate how this girl's gift is looked forward to and appreciated in every home it reaches.

Another girl makes nearly all her gifts in these three ways: In June she gathers "loads" of rose leaves from the old rose-garden, and dries them after an old-time recipe in an immense jar. At Christmas these make, some in inexpensive little jars, and others simply in dainty packages, most acceptable gifts. At about the same time she gathers quantities of pink and white clover-heads, dries them in the sun, and puts them away in a great tin box. From pretty, inexpensive materials she makes the daintiest of fragrant pillows, using the clover for some, and balsam-tips for others. Every one of these pretty gifts breathes the very atmosphere of the farm from which they come, are exceptionally dainty, and cost next to nothing.

The girl who makes the farm solve her difficulties, gathered birch-bark last year. With it she made blotters and calendars, decorated with pretty little camera scenes. From it she also contrived charming boxes and cases which she filled with delicious home-made candies.

One young country matron learned of a new way of making a delectable rhubarb conserve. She filled a great many jars, sealed them daintily with paraffin, and set them aside until Christmas. They were then tied prettily with a sprig of green in the red bow, and many people were delighted with this new conceit in gifts.

On some farms, where geese are kept, their fine feathers seem very ordinary and commonplace. Did you ever think how delighted your girl friends would be with such a pillow? The cover need not cost more than twenty-five cents, yet the gift is valuable.

A ten-cent basket containing a realistic hay nest filled with fresh eggs is a sight to delight the heart of a city dweller. And a nicely dressed fowl is much more acceptable to most persons than a cheap ornament for which they have neither use nor place. One country girl sent back to her friends who were still in college the following Christmas a fine roasted turkey as a collective gift. And what a feast they had! And how long that gift was remembered!

Do not think your town friends are going to look slightly upon your pats of fresh butter, your apples polished to mirror brightness, your cans of yellow cream. It is something they do not often get, even for money.

"But," you say, "many of our friends are country people like ourselves, who have butter and eggs of their own, and who can make their own birch-bark calendars. And some of our town friends live so far away that it is expensive to send heavy things."

Regarding the latter: do not make the mistake of trying to send things by mail whenever possible. Express them, in plenty of time so that they arrive on time. If several things are to be sent to one town, send them together and lighten the cost in that way.

Now, regarding those country neighbors. When you make the discovery of some delicious new preserve or jelly, why not be a bit selfish and keep it for a surprise? It will make a charming gift with the recipe written on a card.

If you are privileged to visit the city, or can learn of some girl friend, or through the woman's departments of magazines learn of some new idea for collars or ties or work-bags, these will be acceptable because of their novelty. Such things may always be pretty without being a great expense.

A girl who is clever with her camera delighted her friends with post-cards of their own home scenes.

Labor is always at a premium in country communities. Why not give your especial talent to your kindly country neighbors? One girl who sews neatly sent pretty Christmas cards to her friends, offering to sew for them an afternoon or a day, according to the strength of their friendship. This gift was accepted so eagerly, and many pleasant associations arose from it. Some girls are clever at trimming hats, some at preserving, some at amusing children. Why not give these homely gifts? They will carry much more joy and "good will" than a hurriedly selected gift we can ill afford and which we send "because we ought to give something!"

Gather your own Christmas greens in the snowy, silent woods. Let the Christmas cheer fill your heart to overflowing. And be thankful this Christmas season that you are a country girl, that Christmas never misses coming in December, and that you have city friends to be remembered so happily.

worked in the doily to correspond. The doily is tied to the top by narrow satin ribbons passed through the holes and finished by a full bow. A set of these covers would make a nice gift for an invalid.

Dotted Swiss pincushion-covers launder well and always look dainty. They are made of two circles of the material, edged with narrow lace and laced together with wash ribbons. Pairs of eyelets, which take very little time to work, are grouped around the cushion, and through these the ribbon is run.

An Idea for Needles

By "Ajam"

ALITTLE silver pocket case for a nail-file makes an excellent needle-case for a sewing-bag, and the little tight cover keeps out the dampness so well that even at the seashore the needles will not rust. A small Japanese bronze pocket match-box also answers the same purpose, or a small tightly closed bottle; a soda-mint bottle with its little screw top is ideal. Cover one neatly with the same material used for a work-bag, and it will be eminently useful and practical and also a thing of beauty; it would be a nice individual little touch to enclose one in a bag made for a gift.

A soda-mint bottle covered with a fancy cretonne, silk or poplin and carrying a store of needles, large and small, is almost gift enough in itself. You might label it: "For Your Work-Basket."

In Select Company

It's the very nature of a soda cracker to absorb moisture and foreign odors.

That's why the ordinary soda cracker remained so long in obscurity.

The advent of Uneeda Biscuit and the moisture-proof and odor-repelling package changed all this—for Uneeda Biscuit, the perfect soda cracker, keeps select company—its own.

To-day the goodness, the freshness and body-building virtues of Uneeda Biscuit are acclaimed in tenement and mansion.

5¢

In the moisture-proof package

NATIONAL BISCUIT COMPANY

Never Sold in Bulk

Get a Watch and Fob Without Cost

Boys:

Here is a chance to obtain a handsome and useful watch, and a fine leather fob with a gilt metal charm engraved with **your own initial letter** without cost. FARM AND FIRESIDE guarantees you satisfaction.

DESCRIPTION: This watch has a handsome nickel case, with open face. It is a stem-wind and a stem-set, just like other high-priced watches. It has a close-fitted snap back. It is only $\frac{3}{8}$ inch in thickness. It is a perfect timekeeper, tested and regulated before leaving the factory. It is engraved front and back, and is a watch of which anyone would be proud.

The Fob is of handsome black leather with a polished buckle, like illustration, with a rich gilt charm engraved with **your own initial**.

MOVEMENT: Regular 16 size. Lantern pinion (smallest made). American lever escapement, polished spring. Weight, complete, with case, 3 ounces. Quick train, 240 beats to the minute. Short wind, runs 30 to 36 hours with one winding.

Every watch is fully guaranteed by the manufacturers and by FARM AND FIRESIDE. The manufacturers will make all repairs for a year free, as explained on the guarantee.



How to Get the Watch

You can get this dandy watch and fob very easily. Write a postal-card to the Watch Man. Tell him you want to get this watch and fob without spending one penny. He will be glad to help you get your watch. This is a chance you must not overlook.

Thousands of delighted boys have secured their watches this way with the help of the Watch Man. You can do it, too. Any boy that really wants one can easily get this fine watch. But how will the Watch Man know about you if you don't tell him?

Write a Postal To-Day to **THE WATCH MAN**

FARM AND FIRESIDE, Springfield, Ohio

Christmas Gifts That May be Made in an Evening

By Mary Eleanor O'Donnell

AWREATH of tiny roses or forget-me-nots for the hair, with girdle to match, is an attractive little gift that young girls will delight in. The roses or forget-me-nots are made with four loops of satin ribbon one inch wide and are caught together with five French knots worked in yellow silk thread. They are placed on a soft wire covered with two strands of twisted ribbon. The girdle is also decorated with the tiny satin blossoms.

A set of bean-bags made of some bright-colored calico would be a source of much pleasure to the small girl or boy, as well as sometimes affording pleasure to their elders.

Play aprons for children are of linen or denim with a contrasting band of color used as binding. The most delightful part of them is a deep pocket that extends across the front of the apron to within a few inches of the waistband. This pocket may be decorated with an odd little dog appliquéd in black, or with Dutch boys and girls in wooden shoes, which may be cut out of cretonne or calico.

A glass-cover makes a pretty and inexpensive gift for an invalid. This is made of a round glass top, a little larger than the tumbler, covered with a small round doily with scalloped edges. Glass tops come for this purpose with two small holes in the center, and eyelets should be

The Road to Happiness

A Story of the Common Lot

By Adelaide Stedman

Author of "Poor Relations," "Miracle," "Intellectual Miss Clarendon," Etc.

Part II.—Chapter IV.



NOT allowing her resolve to weaken, Frances started directly for her room to write Norman. It was an eloquent commentary on her mother's character that the girl never dreamt of going to her for help or advice. Their rooms adjoined, and the door between them was open, but she went straight to her little mahogany desk, and pushing aside all the useless paraphernalia it held, was soon struggling with the hardest letter she had ever had to write. A little later she heard her father and mother talking, but only subconsciously, for she was intent on her task.

In fact, Mr. Taylor had come into his wife's boudoir several minutes before, but finding her asleep on a couch, her rest as calm and untroubled as a child's, he had hesitated to disturb her. She was luxury incarnate as she lay there, in a house-gown of the softest white crepe trimmed with cascades of foamy lace; her head pillowed on dainty satin cushions in cases of embroidered mull; one white hand with its gleaming rings clasping the folds of her dress, the other falling loosely on the couch's edge. Delicate, lovely, fragile; her spell seemed to charm the man anew, and he was about to turn away, when, in wheeling, he caught sight of himself in one of the numerous mirrors the room contained.

A tired, care-lined face, jaundiced and sharpened from worry and nerve strain, and inadequately framed in thin gray hair, looked back at him from the glass. The contrast between his wife's unruffled repose and his nervous anxiety suddenly seemed to irritate him; and, facing back, he laid a rousing hand on her arm, and spoke shortly:

"Wake up, Laura! I want to talk to you!"

Slowly the woman unclosed her eyes, then, seeing who her disturber was, waved him away, saying fretfully:

"How inconsiderate you are, Joseph! If you don't want me to look like a fright at the Harcourt ball to-night, let me rest now!"

"I must talk to you," he insisted; "I—I'm worried!"

Abruptly she sat up, wide awake and intent, though groaning protestingly.

"Oh, why didn't I marry a clever man? It seems to me you've been in trouble ever since we were married!"

"I've been in debt ever since we were married!" he answered, more sharply than he had ever spoken to her. "I've never been able to lift my nose from the grindstone for twenty years—and now—I've come to the end of my rope, unless the—plan—we've made—works."

"It must work!" Her voice rose shrilly and quivered. "Have some backbone, Joseph!" She began to sob. "Don't make—me—have—the—the courage—for—the—family!"

"I hate to go to Norman." His words were mere dejected murmurs. "He'll think me contemptible."

Mrs. Taylor laughed. "Who cares for his opinion?" Again the shrillness crept into her tones. "What in the world did I let Frances accept him for, except the fact that he was a 'necessary evil'! Jacob Jordan would never lend us a penny!"

The girl in the next room was roused by her mother's unusual vehemence, and the mention of Norman's name, and from that moment she listened, almost unconsciously, fascinated and dazed by this sudden lifting of the curtain.

"Norman will come to our rescue if you manage him cleverly," Mrs. Taylor went on. "You will be telling the truth when you say that Frances knows absolutely nothing about all this—that it was our wish to spare her the humiliation—just before her wedding—oh, you know what to say! He's wild about her, and will do anything for her sake!"

"That night when I telephoned you, I was at my wits' end. Things were in such an awful shape—that when you suggested this—expedient—I—agreed! I never dreamt—I'd need help—before they were—married! But now I don't like it, Laura!" Suddenly he dropped his monotonous tone of complaint and exclaimed bitterly with accumulated wrath: "Confound it all! I believe I'll let the crash come!"

"What!" Mrs. Taylor rose furious. "How dare you say such a thing! What possible motive have you the right to put before safeguarding your wife's future?"

"Your own extravagance is to blame!"

"Oh, of course, reproach me because I gave you credit for being clever enough to maintain our position until Frances was safely married. I never cared for myself!" Sobs of self-pity choked her, and she sank back on the couch, burying her face in the dainty cushions, but not so deeply that she could not see the

obstinacy fading out of her husband's face. "I just can't spoil the child's happiness a few weeks before her wedding-day," she went on, still sobbing, confident that Mr. Taylor could never withstand her tears.

She was right. His brief moment of self-assertion passed. Finally he rose with a bitter sigh.

"All right, all right, Laura," he exclaimed in nervous distress. "For heaven's sake, stop crying! I've had to do so many hard things, I guess I can do one more. I'd better telephone Norman right away that I want to see him this evening. There's no time to be lost."

His wife made no answer, but her continued sobbing seemed to be driving him from the room, when suddenly Frances stood in the connecting doorway, so white, shaken and unstrung, that at sight of her face, Mr. Taylor started as if he had seen a ghost.

"You can't do it," she whispered huskily, "you can't do it!"

At the sound of her daughter's voice, Mrs. Taylor sat up in panic, demanding, "Have you been listening, Frances?"

"I heard," she answered, still looking at her father in a dazed way, "and you can't do it!"

"What do you mean?" her mother questioned. "Since you have heard, surely you realize that we have taken

realized that she had been unfairly treated; however, none of the thoughts found audible expression except in the bitterest tears she had ever shed.

"Norman must have gotten an inkling of our intentions and have taken the first opportunity to free himself," Mrs. Taylor declared at last, to break the wretched silence.

"Oh, no!" Frances cried indignantly. "It was all my fault—and I'm going to write and tell him so, and ask him to come back! Thank heaven, I overheard you! I—I'm just miserable over our affairs—but he mustn't know about them. If Father had gone to him—"

Suddenly Mr. Taylor groaned, "Oh, Frances, what an awful mess I've made!"

"You—haven't gone to him already?"

"No—no, but I've used his name to my creditors—to hold them off. I've—intimated that—he—had promised to help me, when he legitimately could—as my son-in-law."

The girl collapsed. This was too much. Perhaps she had lost Norman forever! She did not say a word in protest, but simply sank into the nearest chair, sobbing heartbrokenly.

No one seemed to find words of consolation.

"I can't see any way out," Mr. Taylor said at last.

"Don't talk such nonsense!" his wife cried hysterically. "You've been in difficulties before and have gotten out of them, and you'll just have to find a way this time! You can't ruin Frances's life and mine!"

"I ruin? Why Frances—"

he attempted to break in; but she rushed on furiously.

"Don't stand there talking to us! Do something!"

"Oh, yes, you must do something!" Frances wailed.

For a moment Mr. Taylor regarded the two women oddly, his face twitching with some repressed emotion, then without a word he turned and left the room.

Chapter V.

FRANCES and her mother dined alone, and later Mrs. Taylor insisted that they should go to the Harcourt ball. Constitutionally shallow and a parasite by nature, satisfied that she had pushed all responsibility from her shoulders, and incapable of realizing that she could ever really be cast down from her social pinnacle, she had rallied wonderfully, while inexperienced Frances, influenced by her mother's attitude, began to think that perhaps she had been too tragic.

Surely her father could arrange matters so that Norman would be kept clear of their affairs. Even creditors must have hearts, she told herself encouragingly, and when they understood the situation, they would wait for payment a little longer. She had never encountered the soulless corporation or the impersonal company. After they were married, how gladly she and Norman would help her parents! Sheltered and protected all her life, she could not believe that everything could be taken from her at one stroke.

Nevertheless, as she danced through the long ball, trying to seem gay as usual, she was often disturbed by the thought that her letter to Norman was still unsent, that it must wait until her father gave the word, and that meanwhile he was thinking bitterly of her. She dared not let her mind dwell on her parents at all. Loyal and loving, she shrank from the revelations that the day had brought her. "Surely, they thought they were doing right!" she repeated over and over to herself, and resolutely put away from her any other suspicions.

Several people commented on Norman's absence, but she joked away their questions without ever giving a direct answer.

Jacob Jordan was her devoted cavalier, gallant, unemotional and heedful of her slightest wish. After a brief query about Mr. Norris's absence, he dropped the subject. Indeed, his clever repartee foiled several of her questioners, and while the girl resented a little his tacit acceptance of the fact that she wished to do this, she was too nervous and upset to set herself adrift from his protection.

He was their escort home, and Frances dared not so much as sigh under the gaze of his keen eyes. Already she had the uneasy sensation that he had in some way discovered the truth about her quarrel with Norman.

She imagined that he was acting his part of cavalier and gallant, now that her fiancé had left her unprotected, unprotected, socially, at least. She tried to make herself believe that this was only imagination, that Jacob Jordan was only behaving as he had behaved twenty times before. Nevertheless, the suggestion would not down. She was noticeably glad to be at home once more and able to bid him good-by.

[CONTINUED ON PAGE 31]



"'Oh, yes, you must do something!' Frances wailed"

these measures for your sake!" She had repeated this assertion so often, both to Mr. Taylor and herself, that she had almost come to believe it, and her voice was piteous as she appealed to her daughter.

"You should have told me. I wouldn't have allowed—"

"I always wanted to, Frances, but your mother wouldn't hear of it," Mr. Taylor asserted, miserable under the gaze of her shocked brown eyes.

"Why didn't you do as you wanted—just for once?" she questioned. A wave of bitter, angry disillusionment swept over her. "You should have told me!" she cried.

"It wasn't for my sake! You didn't want me to know, because you were using me—" As suddenly as she had begun her tirade, she stopped, shocked at her own words, and ended brokenly. "I would have helped gladly, but now it's too late!"

"What do you mean?" Mrs. Taylor questioned again, but this time fearfully.

Then Frances told them of the afternoon's quarrel and of the broken engagement, told them as they sat in blank silence, overtaken by the helplessness that comes over people who try to fight retribution. She felt humiliated that her parents had never given her their confidence. She formulated no charges, but dimly she



Christmas Goodies

Some Hints for Making Them



Home-Made Christmas Candies

By Beulah Tatum

FOR Christmas-time nothing seems quite as "festive" as an abundance of good candy. A dozen boxes filled with a good variety will be found a wonderful help in solving the Christmas-gift problem.

Chocolate Fudge—Take two squares of bitter chocolate, melted; one-half cupful of cream, or rich milk; two cupfuls of granulated sugar; one-half cupful of New Orleans molasses, and a lump of butter the size of an egg. Put all the ingredients into a saucepan. Stir them constantly, and let them boil four minutes from the time they commence to boil hard. Test in cold water; remove from the fire when it forms a soft ball in water. Add one teaspoonful of vanilla. Then beat till heavy and smooth. Pour in buttered pans, and spread to one-half inch thickness. Cut in squares.

Chocolate Nut Fudge—Proceed as in the above recipe, adding one cupful of chopped nut-meats when adding vanilla. English walnuts and almonds, or hickory-nuts and peanuts make fine combinations.

Cocoanut Fudge—Take two cupfuls of granulated sugar, two thirds of a cupful of milk, butter the size of walnut, one cupful of shredded cocoanut and one teaspoonful of lemon-extract. Proceed as for chocolate fudge. This makes a white fudge that is very attractive.

Layer Fudge—Use a square bread-pan for molding this. Make the chocolate fudge, pour in, and let it harden; then a layer of cocoanut. Make this quite thick, cut in large squares, and wrap in oiled paper.

Divinity Fudge—This is a college favorite. Take two cupfuls of light-brown sugar and one third of a cupful of water. Cook until it will crack when tried in cold water. Have the whites of two eggs beaten very stiff; pour the syrup over them, and beat until it begins to harden. Add one teaspoonful of vanilla, one-half cupful of chopped raisins and one-half cupful of peanuts. "Spread thick and cut quick" was the college motto for this.

Peppermint Fudge—To two cupfuls of white "Coffee A" sugar add one-half cupful of water and eight drops of oil of peppermint. Boil the syrup ten minutes, then add the peppermint, stir hard until it begins to cream, pour into a buttered pan, and cut into squares.

Peppermint Drops—Use the above recipe; when the candy begins to cream, drop, in large drops, on oiled paper. These are the regulation "after-dinner mints."

Ice-Cream Candy—Eight cupfuls of granulated sugar, two cupfuls of hot water, one teaspoonful of cream of tartar, dissolved in cold water, lump of butter the size of an egg and two teaspoonfuls of vanilla. Put the water and sugar on in a granite-ware pan. Stir until dissolved. When it begins to boil, add the cream of tartar, and let it boil twenty minutes without stirring. Add the butter at last minute. When brittle in cold water, it is done. Pour on large buttered platters; sprinkle vanilla over it and let it cool. Pull as soon as you can handle it. Draw it out into sticks, and cut with sharp scissors the desired length. In twenty-four hours it will be creamy and delicious. I use four platters for this, and have one covered with English-walnut meats, one with chopped figs, and two into which the plain syrup goes. After it is all pulled, I cut about half of it into squares, or odd shapes, and dip in melted chocolate. This gives a delicious mixture, and, to me, is not as difficult as the fondant.

Chocolate-Coated Candies—This is something I learned of a friend who is a domestic science teacher, and is worth knowing. Put the desired amount of bitter chocolate into a bowl, and melt it by placing it in boiling water. To every two squares of chocolate, add a bit of pure paraffin the size of a pea. This insures glossy, hard-coated chocolates.

Fruit Glacé—These fruits add the real confectioner's touch to your boxes of candy. Two cupfuls of granulated sugar and one-half cupful of hot water. Boil the sugar and water slowly for twenty minutes without stirring. Then dip the point of a spoon into the syrup and into cold water. If a brittle thread is formed, the syrup is done. Place the saucepan in hot water, and dip each piece of fruit separately, then drop it on a cold dish. Use a long hatpin or knitting-needle to dip fruit, and do the dipping carefully, so as not to stir up the syrup. Use cherries, white grapes, English-walnut meats, pineapple-chunks and orange-quarters for this.

Maple Creams—The whites of two eggs and one-fourth cupful of sweet cream. Add to this enough melted maple sugar (not syrup) to give a good color and flavor. Then add enough confectioner's sugar to mold easily. Roll into a strip one fourth of an inch thick, and cut into rounds with a tiny biscuit-cutter. Use dark, moist sugar for these.

Stuffed Dates—Remove the seeds from large dates; fill the cavities with fondant, and roll in powdered sugar. A chocolate-coated peanut makes a good "stuffing," too. Or, if you wish to be extravagant, try the luxury of a large English walnut placed within the date. The combination is delightful.

Economizing in Christmas Candies

By Mrs. Eva O. Snider

IT IS unnecessary to buy expensive candied cherries. I use the largest bright-red cranberries in place of cherries. Select only those that are firm, plump and of light color. I prick each one with a darning-needle. When syrup of granulated sugar has been boiling several minutes, I add the berries. Do not allow them to cook mushy. They are removed with a long hatpin, one by one, and placed on a plate in the sun, where, after a few hours, they are beautifully glazed and ready for use. Cherries may be a trifle larger, but certainly no better in looks or taste. Preserved watermelon-rind I use by draining the pieces free from syrup. Place in the sun or warm oven until perfectly dry. This is an exceedingly dainty sweetmeat when dipped in white fondant or cut into bits and placed on top of bonbons. Some of the pieces have chopped nut-meats added, then covered with fondant, and a candied cranberry placed on top. The much-talked-of prune is likewise an agreeable addition to home-made candy-making. They are sometimes ground in the vegetable-grinder (food-chopper), and stirred into fondant when the latter is not quite hardened; then formed into oblong shapes, dipped into melted chocolate, and sliced down when cold. I often add nut-meats, which is an improvement. Small squares of fruit cake, or devil's-food cake, are dipped into white-and-pink fondant, which form a pleasing variety when making up candy-boxes as gifts. Sometimes I use Irish potato as well as sweet potato. Black walnuts form a part of dark fudges and sometimes are used with white fondant in place of the more expensive English walnuts. Hickory-nuts are also used. Canned pineapple, drained free from syrup and dried thoroughly, is cheaper than bought candied pineapple. I discovered that elderberry-juice will give a fine lavender tint to cream candy, as well as a new and delightful flavor. Experience being my best teacher, I have learned to save much in the way of using simple ingredients in my candy-making, and the result is as good as that obtained by buying the more expensive article. I use only the best ingredients and good sweet milk instead of water for cooking candy. Everything is strictly pure, and no harmful colors are used. Pure fruit color is obtained from a confectioner, as are all flavors, except those I make myself, such as lemon, orange, or nutmeg. A rose-geranium leaf gives a delightful flavor if a good-sized leaf is dropped into hot syrup after it is sufficiently cooked and removed from the stove. Remove it quickly, as the flavor is given out. Green color is made by cooking spinach in a double boiler. No water is added. The juice is extracted by pressing through a thin cloth.

Original Verses for Christmas Gifts

By Rosamond Dale

THE value of the personal equation in any gift has been sung in song and story. You have been told of the intrinsic worth of the hand-made, especially planned present, and no one can deny the truth of it. Better a little verse clipped from a page and sweetly appropriate in message than a costly cushion or expensive piece of cut glass.

The good old wishes of the season are simple and true. But there is now an element of the "ready to send" in many printed cards. We have "commercialized," so to speak, the thought behind the gift. Why not write out a little verse to accompany your present? Here are several that have originality and a universality of appeal. Just look over the list.

If your big brother, your Uncle Joe, or your dear friend Bob should need a clothes-brush, buy the simple undecorated type which has most of the cost in the French or German bristles. With it write this little rhyme. It will please him as much as the gift itself.

Dip it in a whitewash-bucket—
Lily painting is great fun;
Gilding gold, too, brings much luck—it
Is excess, but it is done.

With distressing rhyme and reason
Is this offered up to you,
But the wishes of the season
Are enclosed, both good and true.

Then there's the ribbon case with its bolts of lingerie ribbon. Its mother-of-pearl bodkin and a tiny pair of scissors make the gift a practical traveling companion for your young friend. Upon a little sheet of note-paper, decorated with a tiny wreath of flowers to match the Dresden pattern of the case, write this verse:

Here's a ribbon thought for you, dear,
And its color's true.
Can you think what it can do, dear?
Ah! I thought you knew!

Hang it up, and pull it lightly,
Easy as can be.
Don't forget to draw it tightly.
Then, dear, think of me!

A scarf is appropriate for the young girl or her mother. It has grown to be such a feature in dress accessories that it deserves a verse.

From gay Paree,
Across the sea,
This scarf was brought for you;
'Twas bargain day
On the Rue de la Paix—
(Or any street will do).

So 'round your shoulders fair and white
This must be thrown, but not too tight,
The chic Parisienne said;
Tied by the wrist with clever twist,
And now I think I must desist,
The rhyme's gone to my head.

Speaking of grandpa suggests a gift that will be welcomed by one with sight "not so good as it used to be." Did you ever think of a reading-glass? The kind that combines a good lens with a paper-knife is excellent. Tie this wish to the gift.

Here's a reading-glass for you,
Let us see what it can do.
It will magnify a son,
Till it looks a franc.
It will give a large account
In a larger bank.
Do not hold it over trouble
That must always boil and bubble
Into every life.
Hold it over each day's pleasure;
That will give you double measure
Without any strife.

When you present a school umbrella to the little girl or boy, a simple little verse with the puzzling blank is pleasing.

It goes up the chimney down,
But not down the chimney up.
I think I'll let you tell; a
Pretty, silk ———!

The verse that goes forth on Christmas Day in the fulness of its own message is a fitting one with which to end. It should be written on your note-paper and signed.

Just a loving Christmas thought
I must send to you.
Time has wonderfully wrought
Our friendship strong and true.
Dear old friend, as on we go
Toward life's setting sun,
May our steps be sure though slow
Till our journey's done.

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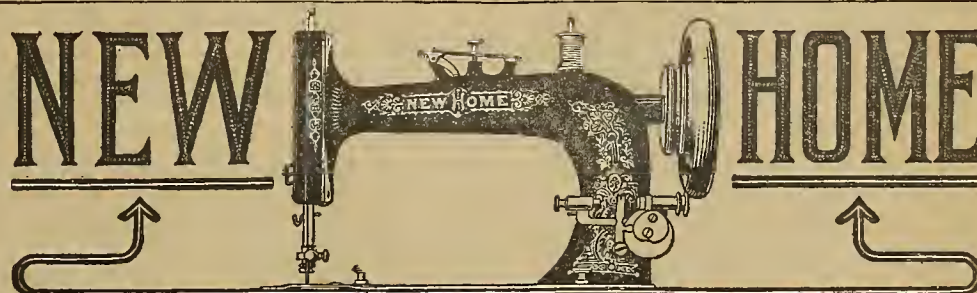
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The Home Interests' Club

By Margaret E. Sangster



WHEN the Home Interests' Club met on a bright day in December, the principal theme of discussion was, what shall we do for the Ruggles children? The Home Interests' Club is located in an ideal neighborhood where nobody is rich and nobody poor and people are somewhere on the same plane of comfort and respectability. Almost the only exception to the general well-being is found in a house standing back a little way from the road at a point where one pleasant township melts into another, within view of a beautiful little river and not far from a chestnut-grove. The Ruggles children are more or less a source of anxiety to all of us. Their mother is a nervous invalid. She would be stronger probably if she could ever make up her mind to brace up, but she is discouraged, and no wonder. She wears from year's end to year's end a red Mother Hubbard. It cannot be the same one, for it is always clean, always faded and always equally depressing in contrast to her fair hair, blue eyes and delicate skin. There is a tradition that in her girlhood Mrs. Ruggles, who was Emily Wells, was pretty, ambitious and high-spirited. If this was ever so, life has robbed her of beauty and hopefulness, has destroyed her initiative and settled down on her gay spirits with the weight of a London fog. She is always seated by her front window, hemming endless wash-cloths which she is supposed to sell to a department-store in the city, and her children from Lottie, who is seventeen, to Alberta, three, never have the proper clothes for summer or winter, and generally look as if they were not fed on the right diet. The one jolly member of the family is Jonathan Ruggles, who ought to be the breadwinner, but never has had the luck to keep in a bread-winning occupation. He sits on the river bank by the hour in the fishing season and occasionally catches fish. He attempts to have a garden, but nothing grows for him, and, although everybody who knows Jonathan declares that he has not a vice, all have gradually become convinced that he cannot obtain a job or hold it if one is found for him. The Jonathan Ruggleses of this world are difficult problems for their fellow creatures to solve.

Once a year the Ruggles household brightens up, and for a short time appears to have made a new start. Harriet comes home for the holidays. She is Emily's step-daughter and the image of her own mother, who died at her birth. She lives with an aunt, has been well educated and is a teacher in a city public school. She never comes here for a summer vacation, because during July and August we are told that she plays the piano in a hotel at the seashore. Whatever money the Ruggles have they owe to the kindness of this lovely girl, who is twenty-three and so charming that she would adorn any station. Still, Harriet Ruggles cannot reasonably be expected, when she comes home for Christmas, to do more than replenish the coal-bin, get the slatternly house clean, and provide shoes for seven pairs of feet. She does all that and sometimes more. If the Ruggles children are to have a share in Christmas festivities outside the Sunday-school, we of the Club must consider ways and means.

Various Opinions

The different points of view of different people are often the precise reverse that one would anticipate on a casual meeting. One of the members, who enjoys a reputation for being notable and practical, and who is never suspected of concealing sentiment and romance under her black silk bodice, addressed the Chair, saying that she, in a recent trip to town, had bought four dolls which she was dressing for the four smallest Ruggles girls. Their names are respectively Helena, Priscilla, Araminta and Alberta. As Mrs. Bliss displayed one of the dolls, it was observed that it had eyes that would open and shut, with eyelashes of real hair, a head covered with clustering curls and the prettiest little hands and feet ever bestowed upon a doll since the first of them came into use away back in Babylon and Nineveh. Deep down in every woman's heart slumbers mother-love, and it shows itself in the manner in which every woman child cuddles and kisses her darling doll.

"Well," said Mrs. Elderbury, "you must pardon me for calling you extravagant, but, my dear lady, that doll would be quite pretty enough to be given to a child in the White House at Washington. That doll would be a treasure to the daughter of a millionaire, and you are dressing it to please Priscilla Ruggles. I suppose the others are just as sweet and attractive as this one."

"I thought it well," said Mrs. Bliss, placidly, "to have a good deal of variety in these Christmas dolls, so that when the children were playing with them they could fancy themselves in some sort of society that belonged to the very best. Priscilla is a dear little thing, but I have noticed that she is very careless, so I am taking especial pains to give her a beautiful doll with a trunk full of nice clothes. I want her to have a standard, and maybe she will live up to it." The Club gasped. They had never once thought of this novel method of giving little Priscilla Ruggles a standard. Mrs. Tillinghurst said with emphasis that she thought the wisest proceeding would be to make up a big, generous Christmas box, in which there should be useful gifts for the whole family, inclusive of stockings and underwear for the children and a new dress for their mother. It seemed a shame that Emily Ruggles should go to her grave, the goal which all were agreed was the one to which she was hastening, in a Mother Hubbard wrapper of faded red.

The idea of a Christmas box commended itself to the Club, although doubts were expressed as to the feasibility of furnishing outfits for a household that had been so accustomed to makeshift that it had parted with a large part of what ought to have been self-respect.

Concerning the Next Neighbor

"If the Ruggles were worthy," said the doctor's wife, "I for one should feel more interest in assisting them. I move that we take up some other subject. If we are to deny ourselves, spend our money and our eyesight and our surplus energy in preparing a box to carry a Christmas thought of joy to people in need, why should we not send the box to a Settlement in a big city? Why should we go to this trouble for a set of country children with a lazy father and a half-sick mother, children who may as well go on staying on the edge of things where they belong, instead of being drawn into the core of things where our children are?"

There was a kind of shocked silence after this speech, because very few people have the courage to say right out in plain

words anything that is really a little bit mean and a wee bit uncharitable. Our friend had said something, without intending it, that stirred in most of the Club a thought of what Christmas ought to be. It ought surely to bring homes of all kinds closer together, and if there are anywhere people out on the edge, it ought to bring them for the holiday season, at least, into the heart's core of gracious sympathy and good fellowship. The next neighbor makes a stronger appeal than a neighbor in a distant spot.

"There is Harriet," said the minister's wife, softly, and almost with reverence. "Nobody appears to remember that Harriet Ruggles is a girl in ten thousand, a girl with the courage of the leader of a forlorn hope, with the sincerity of a martyr, the purity of a saint and the touch of a fairy godmother. I dropped in there last year on the day when Harriet came home, and, if you'll believe me, the floors were cleaned, the windows shone, Mrs. Ruggles sat straight in her chair, and Jonathan had shaved and put on a clean shirt. Whatever we do for Christmas, we must not omit making a really beautiful present to Harriet. If we do get that box ready, friends, we have no time to waste with Christmas a fortnight off, and we must manage to leave it at the door as silently as if we were snowflakes, so that our neighbors, when they wake in the morning, may have the surprise of their lives."

The comparison of the substantial women who compose the rank and file of the Home Interests' Club to tiny feathery snowflakes was so funny that it made us laugh. Hearty laughter is good medicine. When people laugh together, they are apt to work together, and that afternoon the Christmas box of the Ruggles family was planned with a generosity and precision of detail which would have done honor to any group of women in the wide world.

Christmas Plum Pudding

"Now that we have settled what to do about the box, I wish someone would give me a really good formula for nut cookies," said the mother of three hungry boys. "It goes without saying that healthy boys are always hollow when they come home from school, and that mother must have something with which she can fill them up."

The oldest member of the club had inherited a family recipe-book, and as she knew by heart her mother's recipe for nut cookies, she immediately gave it. Here it is item for item:

Three eggs, one and one-half cupfuls of sugar, two and one-half cupfuls of flour, one cupful of butter, one and one-half cupfuls of chopped nuts, one and one-half teaspoonfuls of soda dissolved in a little water, pinch of salt, cloves, cinnamon and nutmeg. Drop on buttered tins.

A request was modestly handed in by a little woman who had a cold and could not raise her voice. She wrote on a slip of paper the following request: "Please tell me how to make black fruit cake that will keep without having any intoxicating liquor in the recipe."

"I happen to have a very good recipe for the fruit cake our friend wants," said the President for the day. "I myself never use anything stronger than cider in my mince pies, and in Christmas plum cake I have never thought it well to use wine or brandy. This cake will keep for months unless the family are so fond of it that they demand it very often for dessert:

"Two cupfuls of brown sugar, two cupfuls of butter, one cupful of molasses, one cupful of sour milk and one cupful of coffee, five eggs, five cupfuls of flour, one teaspoonful of soda, one teaspoonful, each, of powdered cloves, cinnamon and allspice, three cupfuls of seeded raisins, four teaspoonfuls of lemon-extract, two cupfuls of currants, one cupful of citron. Divide into several loaves, and bake two hours."

The Club still had its mind fixed upon the essential spirit of Christmas, and though there was a little scattering talk about Christmas trees garlanding the church and bountiful Christmas dinners, we veered around to Jonathan Ruggles before we adjourned. Mrs. Madison had remained in the background most of the afternoon, but she advanced to the front with the suggestion that startled us a little and yet forced itself upon conscience as a positive duty. She said that she had been aware for some time that we had as a club taken it for granted that nothing could move Jonathan out of his apathy. There is a homely word in use among children that she wanted us to adopt in reference to him. She said he needed a boost, and, if he were to have one, everybody must agree to

Lend a Hand

"The church has no sexton this winter," she said, "and the men who live close by it have been taking turns in making the fire on Saturday, so that the building will be warm on Sunday. Our boys have shoveled the paths and kept them clear of drifts, and we women have done the church housekeeping. We have gone in there and swept and dusted and have taken on ourselves a lot of extra work that we really ought to delegate. At the last church meeting it was decided that there was no one within call who would accept the position of sexton. Not one of us so much as thought of offering this work to Mr. Ruggles. He could do it, and we could stand behind him and see that it was done well, and the monthly salary would be the greatest help to the whole family, would be a relief to Harriet, and, my friends, I feel almost certain it would lift Mrs. Ruggles out of despondency into cheerful health. The Ruggles boys could help their father about the snow, and the oldest daughter could do the dusting after he had swept. We could not make a Christmas offering to the Lord that would please Him more, I verily believe, than by lending a hand to restore our neighbor to usefulness in the community and a measure of honorable self-esteem. How does it impress you? Is the scheme entirely Utopian?"

"If," said Mrs. Elderbury, doubtfully, "we can persuade the men who have to pay the bills that Jonathan is to be trusted, I am of the opinion that we could do nothing better. Remember that lighting and heating our church in winter is an affair of great importance. If he should either set it on fire through negligence or, on the other hand, omit kindling the furnace at the proper time, we should be responsible. As for persuading the men, they have confidence in us and will do whatever we advise. Can we trust Jonathan?"

There was considerable discussion on this point, but it was finally resolved that Jonathan should be boosted. Although the Club expected to exchange greetings during the holidays, the good-nights were accentuated by merry Christmas wishes as the members went to their homes.

A Personal Word from Mrs. Sangster

I shall be glad to receive letters from my readers. All letters accompanied by stamped and self-addressed envelope will be personally answered and will be held in confidence.

A Page of Sunday Reading

A Roman Christmas Story

By John E. Bradley

ON THE top of the Capitoline Hill, the highest of the seven hills of Rome, stands the church of Ara Cœli. It is a slightly spot, beautiful in situation, and intimately connected, by a strange legend, with the Child in the Manger at Bethlehem. It is related that a beautiful woman, a sibyl with a babe of wondrous beauty in her arms, appeared to Augustus Cæsar one night in a vision and told him that on that night a child would be born who would rule Rome forever. The proud emperor smiled as he woke from his dream and went to sleep again. But soon the beautiful vision came again and repeated the same impressive words. The great monarch, now restless and perplexed, said to himself, "This is very strange," but after a while he went to sleep again, and again, for the third time, the vision appeared and the same voice was heard.

The ruler of the vast Roman empire, whose authority was never challenged and whose cares never gave him anxiety, was now thoroughly awake. He thought long upon the strange announcement and the light and beauty of the child. When morning broke, he went with his retinue to the temple of Jupiter, which crowned the hilltop, and there erected an altar in honor of this wonderful babe. He called it Ara Cœli—the Altar of Heaven. Later he rebuilt the temple of Jupiter, making it, by far, the most beautiful of all the temples in Rome, and he adorned the Altar of Heaven with gold and costly jewels.

When Rome became Christian in the days of Constantine, this temple was changed into a Christian church, still retaining the old name and the wealth with which Augustus and other emperors had endowed it. Rome has been sacked and pillaged and burned many times, but a church has always stood upon this spot; and, if we may believe the legend of Augustus, it is the oldest Christian church and this altar is the oldest Christian shrine in the world.

This church is still very rich with its ancient endowments. Every year, at Christmas, the sacred Bambino, or Christ-child, is placed in a richly decorated manger, or "crib," in one of the chapels of this church. The Babe is dressed in the richest robes and covered with jewels and gems. On its head is a heavily jeweled crown. Multitudes of people come to see it—some of them from great distances.

This great edifice is reached by a flight of one hundred and thirty-eight marble steps—a broad stairway, sixty feet wide, broken every eight or ten steps by little platforms. On Christmas Day and every day thereafter until Epiphany, or Twelfth Night, the church is thronged with visitors. The children, especially, gather in crowds, and many of them, who have been trained and carefully prepared, tell stories and recite poems in honor of the Christ-child. These children are exceedingly graceful and recite their parts beautifully. On Epiphany day they form in a long procession, and march around and around the church, and, finally, following the Bambino, or sacred child, which is carried at the head of the procession, they march out on to the wide area in front of the church. From this lofty spot, where the Bambino can be seen by the great multitudes of children in the square below, the ceremony of blessing the children and then of blessing the city of Rome is performed.

During all these twelve days the sides of this wide stairway are lined with street merchants selling toys and fruit and playthings. Everything to please the children can be found here in abundance, and many a mother brings her child day after day and finds, like some American mothers, that one Christmas present will not suffice. This profusion of gifts for the children—and indirectly for the Christ-child—is in imitation of the wise men who brought their gifts of gold, frankincense and myrrh to the Babe in the Manger at Bethlehem.

Exceeding the Average

By Orin Edson Crooker

MANY a man seems content to maintain his life at the average of the community in which he lives. "I guess I'm as good as the average," he says to himself, forgetting that not only is the actual average poor enough, but that if everyone held to the same standard that he does the average would be still lower.

It is only because some people are better than the average that we can tolerate those who are less so. The world is made bearable only by those who exceed the averages in life. If everyone were given to generosity as little as possible, or if others possessed as little kindness, as little sympathy and as little love as possible, what kind of a world would we have? It is because some of their substance, or because some are more than kind, or more than sympathetic, because some are self-sacrificing beyond the actual demands of society, that the world is as good as it is. A "heaping measure" is always better than a skimmed one—in the relationship of life as well as in the market-place. A great many of us must exceed the average that a few may fall below it, without disturbing the even balance of life. Are you above or below the average?

A Minister's Letter to Farm and Fireside

Belle Vernon, Pennsylvania.
To the Editor and Readers of FARM AND FIRESIDE, Greeting:

I have wondered, many times, if it would be interesting or encouraging to the editor and many contributors to the (to my mind) best and cheapest of farm journals published, to know how valuable FARM AND FIRESIDE is to the gospel minister of to-day! It may be that it appeals to me because I made its acquaintance years ago, while a farmer boy in Warren County, in the old Buckeye State; and since that time we have been the best of friends. Many times has it proven the adage true that "a friend in need is a friend indeed."

There are a great many things necessary for the minister to know, which the theological seminaries do not teach. There are a great many things not found in the textbooks of the ordinary college course. The dusty page of history, revealing the happenings of other centuries, may be interesting to the student for a time, but will eventually become dry. The daily newspapers with their conglomeration of politics, markets, accident and crime fail to supply the need. The minister who relies entirely upon any or both of the above-mentioned sources for material with which to construct discourses that will build up his congregation, in mind and character, will find it very frequently necessary to cry, "Awake thou that sleepest." Some of the highest types of Bible characters set us the example of going out into the broad field of nature and learning lessons from God, that have served to teach all classes of mankind in all ages. The prophet, desiring to portray to the human mind the grandeur and beauty of the characteristics of the Christ life, pointed to the "rose of Sharon" and "the lily of the valley." To convey the idea of His mediatorship, He is called the "Morning Star," which receives its light from the sun, and reflects it to us. The Master, after announcing certain signs that should appear, taught the disciples, saying, "Now learn the parable of the fig-tree." To inspire His followers and servants of all ages with energy and ambition, He caused them to look out upon the broad, golden fields of ripened grain "white and ready to the harvest." The great Paul taught the deepest lesson on the resurrection from a "grain of wheat or some other grain."

These men were all students of nature. Few men realize their real possessions or the importance of their position. "Go forth, multiply, and replenish (develop) the earth, have dominion over it," beautify it in every way you can; improve it, improve all that God has given, land, stock, grain. Never do I see a well-improved farm, with highly cultivated fields and here and there a clump of cared for shade-trees, under which the satisfied flocks and herds are resting; its graveled drives and spacious lawn, where children romp amid the flowers; its seas of gold, where waves of ripened grain roll before the summer zephyrs, but I think of God's first command to man. Many of us, whom divine Providence has called into the cities, where all is hurry; where every thoroughfare is a seething mass of humanity hastening to and fro, crowding, pushing their way through life from early morn till late at night; where every breath of air is freighted with the dust and dirt of the busy street, and this throng permitted once a year, during a two-weeks' vacation, to go out into the beautiful country and read and study God's wonderful book, "Nature," then we know the value of and appreciate a journal which is in close touch with the wonderful works of God. Yes! I consider the bi-weekly visits of FARM AND FIRESIDE as indispensable. No paper is more eagerly read or with more interest, my dear brethren, knights of the plow. At great expense it is teaching me lessons, and through the columns of the thrice-blessed FARM AND FIRESIDE I am furnished with knowledge impossible for me to gain, under present circumstances, in any other way. My congregation, as well as myself, is indebted to Brothers Grundy, Greiner, Vincent and others, together with the FARM AND FIRESIDE editors, for many an illustration which has served to set forth some idea of God's wonderful plan for man, and inspired us all with courage. No man needs such help as a good farm journal gives more than the city preacher. No lesson is more attractive to his city hearers than the lesson drawn from God's works of nature found on the farm.

In the country, as nowhere else, do we understand the miracles of seed-time and harvest, the rain's blessing as it falls on the just and the unjust. A few weeks ago, while we were gathered in the house of God for morning worship, the weather was sultry and the large windows were thrown half open, through which passed the discordant sounds of the busy world (for Sunday is not so quiet here as in the country). The choir had finished singing a beautiful hymn, and as I arose to preach the Word one of God's little songsters perched himself above my head, and warbled forth his beautiful lay, thrilling every soul within those sacred walls. I waited for him to finish his beautiful song, when many a weary pilgrim, with bowed head and tearful eye, thanked God for sending such a beautiful little soloist our way to cheer us with his pretty song, and prayed that he come again.

REV. W. S. DUDLEY.

The Victory of Good Care

By Edgar L. Vincent

"HE TAKES good care of everything." It is not hard work to tell what will be the fortune of the man of whom that can be said, no matter whether he live out on the farm or in the city. Good care is the key that unlocks success.

Not far from my home a man lives who is a good example of the truth of this statement. At the close of the war this man came back from the army, not very well, yet with a great purpose in his heart to do a little farming. After looking about, he bought a place of about thirty acres. It might not have seemed very promising to the average farmer. Most of us like to find a place where a good share of the work of building up has been done. How often we hear the words, "Fools build houses and wise men live in them."

But this old soldier was not at all discouraged by the outlook. The fact that the place was small and a good way from market did not disturb him. A good share of the land was yet in the rough. He was not extra strong, while his only son was a mere lad. His wife, also, was not very strong in body; but what she lacked that way she made up in others. She could help about the planning, and she knew the value of careful management in the home. So they settled down to make a good farm home.

I like to look at that little farm now. The land is almost all under cultivation. Good crops come from it. The barns have been enlarged over and over again. The house is as neat and pretty as white paint and green blinds can make it. The orchard is thrifty and bears well every year. Within the home good papers are on the table. The young lad is a man grown, and life is steadily going on at the noon-day hour in a way to make the heart glad.

The sunshine is always more striking when it comes out against a dark cloud.

Here is another picture. It is not fancy. You can find its counterpart in almost any neighborhood. A young man was left a fairly good home. There was a mortgage on it, I know. But mortgages are not the worst things in the world. They have often spurred men to higher endeavor and more persistent striving. This young man had a nice, careful wife. I saw her the other day driving away from the creamery with a load of milk-cans, with one of the little fellows tucked up by her side. She has lost some of the roses that used to be on her cheeks. The years have brought a look of care to her eyes. I felt like taking my hat off to her. Any woman that will stay true to a man as she has done, through sunshine and through shadow, is worthy of the highest praise.

It would not be right or best to stay to give details in this case, any more than in the other. Just let me say that the loose screw with that farmer has always been lack of care. The cows did not do well. The horses never looked as if they had a good time of it. The buildings went down. Machinery did not last. It was not used properly, nor housed when not being worked.

One of my little chaps went with us visiting a good many years ago. After calling at one farm in the morning, we went down to a neighbor's for a little while before starting for home. In this last-named place things did not look right to the boy. Affairs were evidently run down at the heel. Nothing in place anywhere. The general state of the farm was discouraging. At last, after wandering about for some time in a disconsolate sort of a way, the boy came back into the house and appealed to his mother. "Let's go back up there. It's healthier up there!" Have you not seen places that made you feel that way? It was not healthy around there. The reason is because of the lack of care. Ten acres farmed with care will make a better home than a thousand where everything is run at loose ends.

The victory is always with the man who cares.

A Sermon by the Wayside

By Charles Henry Prather

FAR out in the West a little Indian girl stood on a railway platform; and a group of restless travelers had gathered in a circle about her, examining her wares. On every hand the desert stretched away, meeting the bare, black mountains.

"You pay two prices for what you buy here," said the man with his hat on one side, who also had the air of knowing it all, "but the tourist is robbed everywhere."

"This is no cheat," the little Indian girl protested. "I make the baskets myself, and they take me many days."

"Of course," said the same man with his hat on one side. "And why shouldn't they cheat? I'd do the same in their places." He winked at a man and laughed unpleasantly.

The next remark of the Indian girl was unexpected. "For what shall it profit a man," she said in slow, painstaking English, "if he gain the whole world, and lose his own soul? That is what they taught me at the mission school; and I will not lie that I may sell my baskets, even though I go hungry."

It was a silent company that climbed the Pullman as the conductor signaled to start. "It wasn't long for a sermon," said the man with his hat on one side, "but it's one that you can't forget in a hurry."

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Attractive Crocheted Yoke

It Makes a Pretty Underwear Trimming

By Emma L. H. Rowe

THIS attractive crocheted yoke may be easily made and applied to a nightgown or corset-cover. It is very decorative in effect, yet is most simple of construction.

Three motifs constitute the yoke, and their simplicity will go far toward making pleasant "pick-up" work.

About No. 80 crochet-cotton, with a correspondingly fine crochet-hook, will be required.

For the large wheel:

First Round—Chain twelve; fasten with slip-stitch to form ring.

Second Round—Chain three (to take the place of a double crochet), *chain two, one double crochet in chain-stitch of previous round (always working over two threads of each chain-stitch for strength), repeat from * to end of round, chain two, then fasten with slip-stitch in the third chain made at the beginning of round.

Third Round—First spoke of wheel.

Each half of the front measures seven wheels across, side by side; with a second row of seven, joined, wheel by wheel, beneath the first row. Then two wheels are added beneath at the center front, and another wheel beneath, forming at the center front a perpendicular of four wheels, one under another.

At the arm side of the yoke two rows of two wheels each are joined beneath the two long rows of seven. Then at the side, above the top row of seven wheels, are joined seven rows of four wheels each. These form the wide shoulder-strap.

The last two wheels of the seventh row of four are joined at their base to the sides of the two front arm-side rows of two wheels each. In this way, when the yoke is held in the hand, a point is formed under the armhole.

This completes one entire half of the front.

The back is simply a wide straight strip.

After both fronts are made, the back, consisting of two rows of six wheels each, may be joined to the last two rows of the seven rows which form the shoulder-strap.

The small wheels fill the center spaces left between the large wheels. As each small wheel is constructed, it is joined, at the second and third picots of each spoke, to the large wheels surrounding it.

When the yoke is entirely formed, a firm outline of chain-stitches is made around the body part of the yoke, to give strength where it joins the muslin of the garment which it is to adorn.



A yoke for corset-cover or nightgown in an effective crochet design

chain eighteen, single crochet in last chain-stitch just made. *Work over long chain as follows: Three single crochets, picot of four chain, three single crochets, picot, three single crochets, picot, three single crochets, picot, three single crochets, picot, three single crochets, picot, four single crochets, picot, five single crochets, picot, six single crochets. Fasten with single crochet over next chain of two of previous round. Turn work.

Second Spoke—Chain eighteen, fasten with slip-stitch between second and third single crochets of group of four single crochets of previous spoke, turn work, then repeat from * of first spoke.

Make all other spokes similarly, except the twelfth.

Twelfth Spoke—Work as usual until the group of four single crochets is reached. After the second single crochet of the group is made, catch with slip-stitch to loose end of the first spoke made. Then make two single crochets, picot and finish as usual. Fasten off securely and cut thread.

First Round—Make chain of eight stitches, fasten with slip-stitch to form circle.

Second Round—Chain ten; single crochet in last chain just made. *over the long chain, make three single crochets, picot of four chain, three single crochets, picot, three single crochets, picot, three single crochets, picot, six single crochets. This forms first spoke of small wheel.

Fasten with single crochet over ring formed previous round, one more single crochet over ring, picot, two single crochets over ring, turn work. Then begin:

Second Spoke of Wheel—Chain eight; fasten with single crochet between third and fourth single crochets of group of six single crochets previously made. Turn work. Repeat from *.

Third Spoke—Like second.

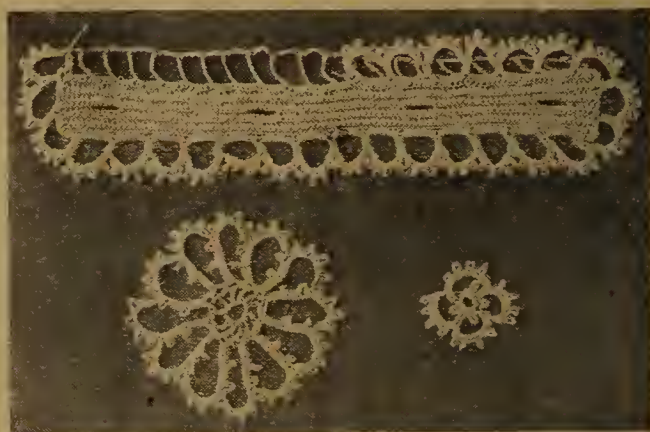
Fourth Spoke—Like second, until between third and fourth single crochets, where make a single crochet to connect with the loose end of first spoke made. Make three single crochets as usual to complete the six single crochets, then fasten with single crochet over ring, one more single crochet, picot, two single crochets, fasten off securely.

As each large wheel is being made, it is joined to its predecessor at the second and third picots of two spokes—the joining being made with slip-stitch between the second and third chain-stitches of each of the two picots, through the corresponding picots of wheel previously made.

The illustration is modeled rather largely and should be modified according to bust measure of the prospective wearer.

Begin at the top wheel of the center front for the following stitches:

Fasten with single crochet to second picot of the corner spoke, chain three, single crochet in next picot, seven chain, single crochet in second picot of next spoke, chain three, single crochet in next picot of same spoke. Chain seven, single crochet in second picot of next spoke, chain three, single crochet in next picot of same spoke. Chain five, long crochet (three threads over crochet-hook, worked off two stitches at a time) in end of picot of next spoke. Chain five, long crochet in end picot of next spoke. Chain five, double crochet in second picot of next spoke, chain three, double crochet in next picot of same spoke. Chain seven, single crochet in second picot of next spoke, chain three, single crochet in next picot of same spoke. Chain seven, single crochet in second picot of next spoke,



Showing the detail of the designs used in making the crocheted yoke

chain three, single crochet in next picot of same spoke. Chain five, double crochet in second picot of next spoke, chain three, double crochet in next picot of same spoke. Then chain five, repeat from *.

Work to end of front side. End with two long crochets. Along lower end of yoke, continue from last long crochet, work as follows: *Five chain, single crochet in second picot of next spoke, three chain, single crochet in next picot of same spoke, repeat from * twice more. Chain five, double crochet in second picot of next spoke, chain three, double crochet in next picot of same spoke. Chain five, double crochet in second picot of next spoke (small wheel), chain three, single crochet in next picot of same spoke. Chain five, double crochet in second picot of next spoke, chain three, double crochet in next picot of same spoke, and so on around entire yoke. Change again to directions for center front.

Begin at top, fasten with slip-stitch to first single crochet. Chain seven, treble

[CONCLUDED ON PAGE 29]

Dainty Yet Practical Clothes

They Make Appropriate Christmas Gifts

Designs by Grace Margaret Gould



No. 1906



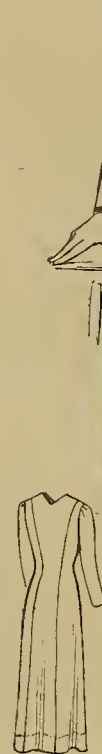
No. 1908



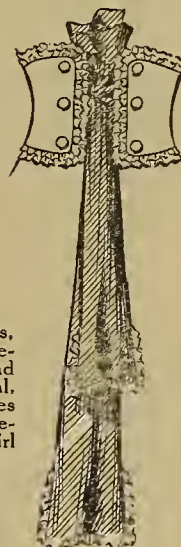
No. 1700



No. 1910



No. 1702



No. 1901—Set of Girdles

Patterns cut for 22, 26 and 30 inch waist measures, small, medium and large. Quantity of material required for either girdle in the medium size, one and seven-eighths yards of twenty-four-inch material. Price of pattern, ten cents. One of these girdles developed in satin or silk would make an especially attractive Christmas gift for the young girl

Woman's Home Companion Patterns

IF YOU want to give your friends Christmas presents which they are sure to like, give them some of the dainty clothes illustrated on this page. There are easy-to-use patterns for every one of them.

Special Premium Offer

To any FARM AND FIRESIDE reader sending one new subscription to FARM AND FIRESIDE at special club price, 35 cents, we will give as a premium one WOMAN'S HOME COMPANION pattern. To obtain pattern without cost, send subscription to FARM AND FIRESIDE, Springfield, Ohio.

No. 1906—Room-Gown with Large Collar

Pattern cut for 32, 36, 40 and 44 inch bust measures. Quantity of material required for medium size, or 36-inch bust, seven and five-eighths yards of twenty-seven-inch material, or four and one-eighth yards of forty-four-inch material. Pattern, ten cents

No. 1702—Princesse House-Gown

Pattern cut for 34, 36, 38, 40, 42, 44 and 46 inch bust measures. Quantity of material required for medium size, or 36-inch bust, eleven yards of twenty-four-inch material, or seven and one-fourth yards of thirty-six-inch material. Price of pattern, ten cents

No. 1785—Set of Collars and Cuffs

Pattern cut in one size only. It includes a paper pattern for the linen collar-and-cuff set with Irish-crochet medallions and for the sailor collar trimmed with Irish-crochet insertion. The trimming in both collars may be omitted. Price of pattern, ten cents

Where to Send Your Pattern Orders

TO INSURE a more speedy delivery of WOMAN'S HOME COMPANION patterns, we have now established two new pattern-depots. The patterns cost but ten cents, the catalogue but four cents. To facilitate the quick delivery of patterns and catalogue, send your order to the nearest of the three following pattern-depots: Pattern Department, FARM AND FIRESIDE, 381 Fourth Avenue, New York; Pattern Department, FARM AND FIRESIDE, Springfield, Ohio, or Pattern Department, FARM AND FIRESIDE, 1538 California Street, Denver, Colorado.

No. 1908—Fitted Dressing-Sacque

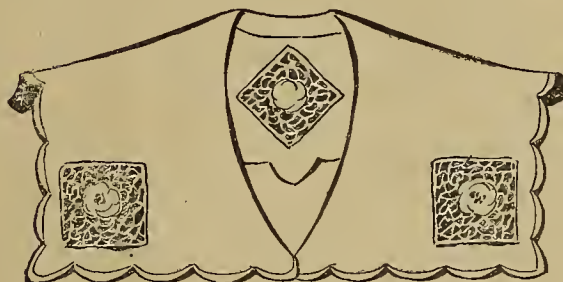
Pattern cut for 32, 34, 36, 38, 40, 42 and 44 inch bust measures. Material required for medium size, four and one-half yards of twenty-two-inch material, or two and one-fourth yards of thirty-six-inch material. Price of pattern, ten cents

No. 1700—Sacque with Sailor Collar

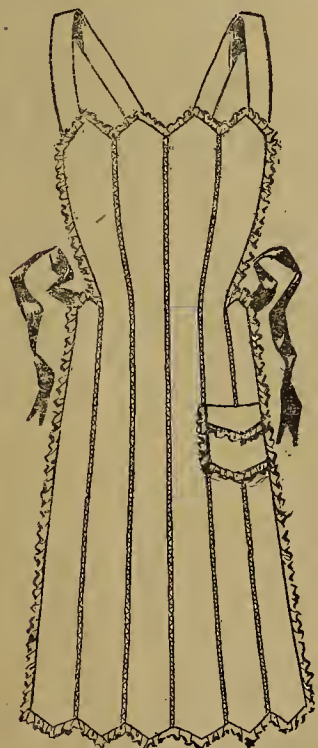
Cut for 34, 36, 38, 40 and 42 inch bust measures. Material required for 36-inch bust, three and three-fourths yards of twenty-seven-inch material, with one yard of contrasting material for the trimmings. The price of this pattern is ten cents

No. 1910—Belted Dressing-Sacque

Pattern cut for 32, 34, 36, 38, 40, 42 and 44 inch bust measures. Material required for 36-inch bust, three and three-fourths yards of twenty-seven-inch material, or two and one-fourth yards of thirty-six-inch material. Price of pattern, ten cents



No. 1785—Set of Collars and Cuffs



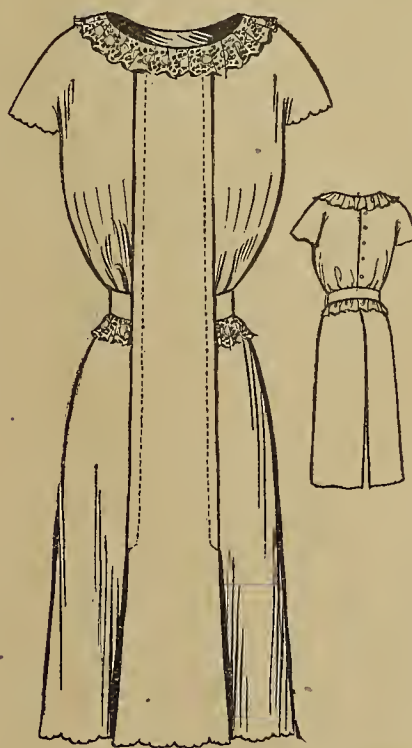
No. 1659—Gored Princess Apron

Cut in one size. Quantity of material required, two and three-eighths yards of twenty-two-inch material, with six and one-half yards of lace edging. Lace insertion between the gores in this apron would be attractive. Price of pattern, ten cents



No. 1662—Apron with Heart Border

Pattern cut in one size. Material required, seven eighths of a yard of thirty-six-inch material, two and three-eighths yards of edging, one and one-eighth yards of beading and a piece of bright-toned, satin baby ribbon. The price of this pattern, ten cents



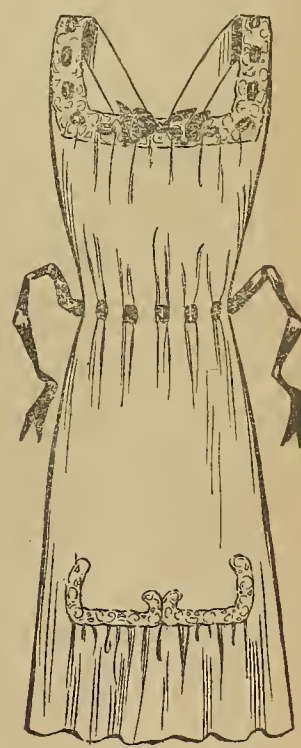
No. 1905—Jumper Apron in Citoyenne Style

Pattern cut for 32, 34, 36, 38 and 40 inch bust measure. Quantity of material required for 36-inch bust, three yards of thirty-six-inch material and two and three-eighths yards of lace. Price of pattern, ten cents. This apron may be made of dotted Swiss and trimmed with lace or fabric frills



No. 1661—Sewing Apron with Pocket

Pattern cut in one size. Quantity of material required, one and one-half yards of twenty-four-inch material and four and one-half yards of lace. Flowered batiste is a very good material for this dainty apron trimmed with narrow lace. Price of pattern, ten cents



No. 1904—Suspender Apron

Pattern cut in one size only. Quantity of material required, one and one-half yards of thirty-six-inch material, with two yards of wide beading. Price of pattern, ten cents. This is a particularly dainty apron to wear over one's best dress

Our Young Folks' Department

Easy Things to Make for Christmas Gifts

Some Easy Gifts

By C. Ida Ferris

NOW, girls and boys, here are some things you can make for Christmas. And I know you can make them, because girls and boys in Boston and Baltimore, Philadelphia, New York and Chicago, Mont Clair and Madison and lots of other places do.

All you will need will be patience, care and some good paste. You'll find suggestions for a good paste on this very page.

There's the book for embroidery-silks for mother, the pen-wiper for father, slipper-rosettes for sister, a box to hold home-made candies for little brother, a pair of candle-shades for a girl's room, a tissue paper book for cleaning grandpa's or grandma's spectacles, the same kind of a book might be used for shaving-paper, a blotter for uncle's desk, a fancy-work bag for your aunt and the wish-bone pin-holder for the baby.

Now just get to work as fast as you can, and get your Christmas presents made. Have a ruler, a sharp lead-pencil, plenty of paper, needles and thread, and begin!

A Book to hold mother's embroidery-cottons and needles: Cut an oblong of stiff manila or any sort of heavy paper seven by eight inches. Then cut an oblong of cretonne or chintz or some gaily flowered material eight by nine inches. Fit the manila oblong within this, so as to leave half an inch margin of cretonne all around it. Fold over this margin, and paste it down neatly.

Cut an oblong six and three-fourths by seven and three-fourths inches of light-tinted paper. Paste this oblong as an inside lining to the cover just made. If pasted correctly, there will be an even margin of cretonne all around the lining. Fold this finished cover in half, and crease well. Now cut four or five oblongs of the same paper and size as the lining, six and three-fourths by seven and three-fourths inches. Fold these in half to serve as leaves for the little book. Cut a small oblong of some soft material, such as flannel, to serve as a needle-holder four by seven and one-half inches. Sew this oblong within the finished cover, and on top of it, the leaves. With a pair of scissors or a punch make two holes one-half inch from the top and bottom and through leaves, needle-holder and cover. Lace a piece of ribbon through these holes, and tie in a knot on the outside and center back of the book. Allow two long ends to hang, which may be tied around the book to hold it shut.

BOOK TO HOLD PAPER for cleaning grandpa's eye-glasses or spectacles.

Make it just as the first book was made, using, instead of the cretonne, a plain material or piece of dark-tinted paper, cut in an oblong nine by six inches. For the foundation use a piece of the same manila or stiff paper from which the first book was made, but cut in an oblong eight by five inches. Line the cover with an oblong of paper of a contrasting color seven and one-half by four and one-half inches.

When the cover is made and lined, punch two holes in it one-half inch from top and bottom, and lace through a piece of colored cord, and tie in a bow on the back. Now cut about a dozen oblongs of tissue paper seven and one-half by four inches. Slip these oblongs through the cord on the inside, where they will be held firmly in place, but not sewed through as the leaves of the first little book. When the recipient of this gift wishes to clean his glasses, all he needs do is to pull out one of the sheets of tissue paper. Anyone with artistic tendencies can make a little decoration on the outside of the book as shown in the illustration.

ATTRACTIVE CANDLE-SHADE: One needs only a piece of stiff white paper, some cretonne and a bit of lace. Draw two circles, one within the other, the larger one four and one-half inches and the smaller one two inches. Do this with a compass, of course. Draw a line through the two circles, cutting them in half. Cut out one half carefully with a pair of scissors, and you have your candle-shade undecorated. See the pattern given on this page. From a piece of flowered cretonne cut out four roses or any sort of flower. Decide where on the candle-shade they look best. But cut four little places out of the shade, leaving openings a little smaller than the cretonne flowers. Paste the cretonne flowers neatly over the holes. Along the lower edge of the lampshade paste a piece of narrow linen or Torchon lace, holding it a bit full as you paste, so it won't curl under. When the lace is on, fold over the two ends of your candle-shade, and paste. Before using this shade it should be lined with a thin asbestos paper. This prevents its catching fire, and enables you to use it over a lighted candle.



Holly Cup for the Christmas Feast

UNIQUE PEN-WIPER: Cut four pieces of flannel or any sort of cloth material, each piece a trifle larger than the other. Sew them together, the smallest on top. From a piece of muslin make a little bag measuring about one and one-half by two inches. Stuff it with cotton, and tie the neck in tight. Print on the outside, "Malt," in ink. Glue this little bag to the smallest piece of flannel. Have six or seven dried apple-seeds. Thread a needle with coarse black cotton, and tie a knot at the end. Run the needle in at the pointed end of each apple-seed and out at the round end, and cut off, leaving about one-half inch of thread for a tail. Lightly place these little mice with a drop of glue on the bag of malt. They are very cunning.

A CASE FOR SAFETY-PINS made from ribbon, flannel and a chicken's wish-bone. Secure three-fourths of a yard of two-inch ribbon. Cut off a piece one-half yard long, fold in half, and cut a tiny hole through which to put the head of the wish-bone. Cut a piece of flannel slightly smaller than the ribbon, and make a tiny hole in it, also. Cover the legs of the wish-bone as neatly as possible with the ribbon, although that is not absolutely necessary. Then wrap the head of the wish-bone with a piece of cotton batting, being careful that it is smooth. Slip the head through the two holes made in the ribbon and flannel, and with a needle and thread secure it firmly in place at the neck with a stitch. Fold over the ribbon to give

the shawl effect as shown in the illustration. Make a tiny pointed cap from a little piece of the ribbon which is left, and sew it on the head. Make eyes, nose and mouth with ink on the cotton face, and fasten safety-pins of different sizes upon the flannel lining, which, to look really well, should be cut in little points or scallops. Tie a narrow ribbon around the neck to hang it by.

A RIBBON BAG to hold a crochet or knitting ball: Take one-half yard of five-inch ribbon, fold over one end, and sew into a point. Gather one side about one-fourth inch from edge, and draw up tight, fastening the two edges of the ribbon together. Wind a little brass ring with a narrow ribbon of the same color. Gather the upper edge of the bag, and sew it to the covered ring in a few places. This leaves the bag open down the side, to allow the ball of crochet cotton to slip in. Put a hook and eye on the bag, to hold it shut, and long ribbon strings made from one yard of ribbon, to hang over the arm.

A BOX FOR PINS or collar-buttons: Cut an oblong of tough paper. Draw on the oblong the pattern shown in the center part of the page. Crease well on every line, and cut on the heavy lines. Decorate the cover with some simple design of your own. You may like to use the decoration pictured here.

SLIPPER-ROSETTES: Cut from a piece of silk or ribbon two circles about three inches across, gather them into little puffs, and put a tiny bit of cotton in each puff. Two strips of chiffon or tulle, four inches by thirty-six inches, are required for the two rosettes.

To make a rosette, fold the piece of chiffon lengthwise, making a strip two by thirty-six inches. Gather the whole length, and, using the little satin puff as a center, wind the chiffon around and around it, and draw up tightly, and sew through and through to the center. Though the under part is rough, it does not show when sewed on a slipper. These make most effective little rosettes, and a big sister would welcome a pair to match her slippers.

A PRETTY BLOTTER: Oblongs of blotting-paper, four by eight inches, at least three of them, and a plain piece of white paper of the same dimensions, with a piece of tissue or tracing paper and a soft pencil will make this blotter. Trace a simple design of an apple, or pear, or a flower from a magazine or any book which you have. Trace it on the oblong of white paper, and go over your drawing with a hard, sharp pencil. A perfect outline of your tracing will result. With a heavy pin, prick out the outline in a series of little holes. When the outline is done, fill in with the pin any parts of the design which look best filled in. For instance, in the blotter shown the pear was filled in with little pin-pricks and the leaves only outlined. When finished, turn over on the wrong side, which is really the right side, and attach to the blotters with a bow of ribbon.

For the Tree and the Table

By Virginia B. Jacobs

THIS little basket comes from Germany, and looks as if it were to hold all sorts of goodies when it is hung on the Christmas tree.

You must have cardboard and crêpe paper and a bit of string and plenty of good white paste. Gum tragacanth, dissolved in water, makes a fine paste for dainty paper-work; it does not leave spots, and five cents' worth from the druggist's will last for ever so long. After you finish, you let the gum dry into bits, and put it away, and it is good as ever the next time you are ready to use it, if it is again dissolved in water.

Cut the cardboard into pieces shaped like A. The length from a to b is five and one-half inches, from c to d it is six inches, the length of c and d is four inches.

Cut a piece of crêpe paper to cover the cardboard, with the crinkles running from a to b. Cut it seven inches long and nine and one-half inches wide. Lay the cardboard in the middle of this paper, and paste down a half-inch edge at c and d (see the drawing). Allow two inches of paper to extend beyond the cardboard at a and b.

Decorate the center of this paper with tiny pictures, stars or lace paper in pretty designs. Let it dry thoroughly, while you twist some strands of the paper into handles. These cords are pasted at each end of the straight sides. If the paper cords are spread out a little flat, they will hold securely.

Now bend up the ends c and d toward each other, but do not crack the cardboard. Gather the extra paper at each end, and tie it fast with a bit of string quite close to the cardboard.

Cut inch-wide strips of the crêpe paper.

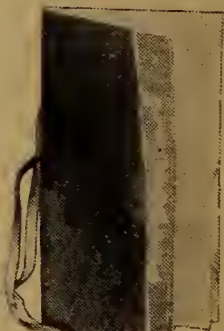
[CONCLUDED ON PAGE 31]



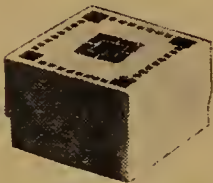
Book for Shaving-Paper



Blotter



Book for Embroidery-Silks



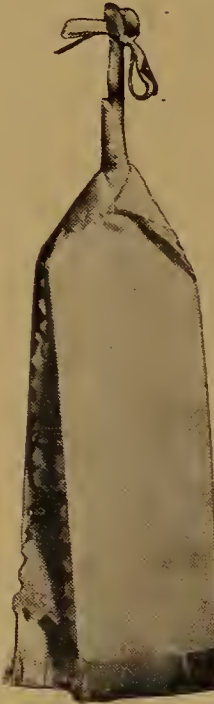
Collar-Button Box



Candle-Shade



Pair of Slipper-Rosettes



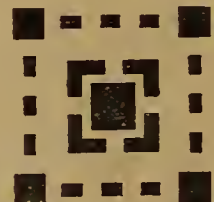
Wish-Bone Pin-Holder



Pen-Wiper



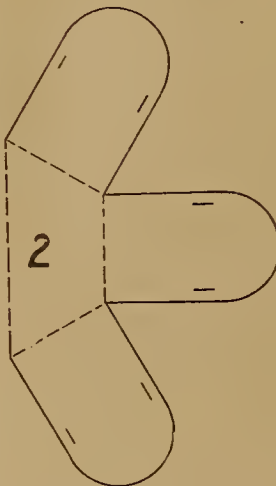
Bag for Crochet



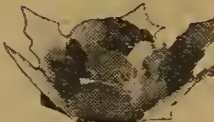
Design for Collar-Button Box



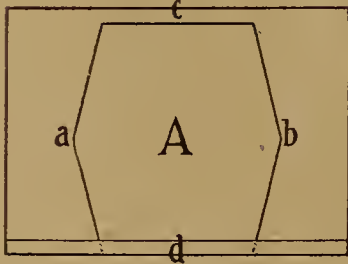
Christmas-Tree Basket Completed



Pattern for Inside of Holly Cup



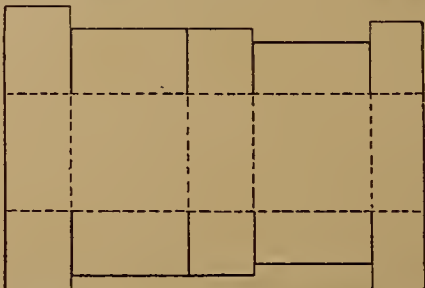
Holly Cup Completed



Pattern of Basket



Pattern, Outside of Holly Cup



Pattern for Collar-Button Box



Pattern for Candle-Shade



Basket Made up in Crêpe Paper

The Housewife's Club

EDITOR'S NOTE—Monthly we give prizes of \$2.00 for the two best descriptions (with rough sketch) of original home-made household conveniences or labor-saving devices, and \$1.00 for the third best or any that can be used. We also give 25 cents each for helpful kitchen hints and suggestions, also good tested recipes that can be used. We would suggest that you do not send more than two recipes, and not more than five kitchen hints each month, because we receive so many that space will not allow us to print them all, in spite of the fact that they are reliable and practical. All copy must be in by the thirtieth of December, and must be written in ink, on one side of the paper. Manuscripts should contain not more than 250 words. We would suggest that contributors retain duplicate copy, as no manuscripts will be returned. The mail is so heavy that it is impossible for us to acknowledge receipt of manuscripts. Address "The Housewife's Club," care of Farm and Fireside, Springfield, Ohio.

The Useful Scraper

This scraper can be made of galvanized iron, and is a handy tool in the kitchen. It is about three and one-half inches long by two and one-half inches wide. The straight edges are used for flat surfaces, and the curved edge for concave surfaces. The corners fit into any corner or crack. It is a convenient tool for scraping kettles, pans, removing seeds from squashes, etc. The hole in it permits it to be hung near the kitchen table.



F. W. C., Washington.

Graham Bread

Three cupfuls of buttermilk (sour milk can be used, but buttermilk is much better), five cupfuls of crushed wheat-flour (ground from whole wheat), one teaspoonful of salt, one rounded teaspoonful of saleratus (dissolved in buttermilk). This makes just one loaf. Bake in a round, covered bread-pan in a quick oven for not less than one and one-half hours. If this bread is baked just right, it will be a golden brown color all through and so spongy that a slice can be doubled without breaking.

Mrs. W. F., Washington.

Window-Plant Pests

During late winter plant pests are usually most prevalent, unless frequent sprinkling of warm water has been resorted to. Here is a good insecticide and one always at hand. It is made of a quarter bar of soap melted and thoroughly mixed with one pint of hot water, well shaken with one tablespoonful of kerosene. When thoroughly mixed or emulsified, add one pint more water.

A tea made of a handful of tobacco and a quart of hot water is good. Crushed tobacco-stems on top of the pots is a good preventive, and makes a good mulch.

For tiny red spiders, a sprinkling of red pepper on both plant and soil is good.

For fungous growths, a dusting of two parts sulphur and one part lime, by means of a dust-bag, is effective.

A general poison for all insects is made by steeping five cents' worth of quassia chips in about two quarts of water. Thoroughly sprinkle all parts of the plant and the soil. It will not hurt plant life, but is fatal to insects.

Scale can only be removed by picking it off. Fortunately but few plants are subject to it, a notable one being the English ivy. If it is formed in great quantities, it is best to cut off and burn the whole top of the plant, before it spreads to others.

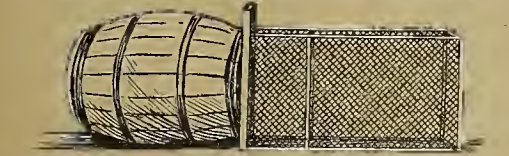
Mrs. E. G. F., New York.

During the winter months, houseplants are frequently attacked by destructive worms. Their presence is indicated by a sudden drooping of foliage and a general decline of vigor. Yet there is no outward sign of the underground siege. A good way to exterminate these pests is found by pushing into the earth, near the plant, a number of parlor matches, sulphur end down. The fumes of sulphur destroy the animal life, yet are non-injurious to the vegetable life of the plant. An almost instantaneous relief is effected.

Mrs. J. J. O'C., Washington, D. C.

Home-Made Poultry Devices

Flour-barrels make excellent coops, roomy and cheap. A little frame is made for the front, consisting of four pieces of board, the uprights, six by twenty-four inches, and



two crosspieces, top and bottom, two by twenty inches. Fasten frame to front of barrel by wire, leaving opening for door. Fasten it so that a slide door, eight inches wide, can be easily dropped in from the top. This door is made of one-half-inch-mesh cellar-window wire, nailed or stapled to strips of wood. This gives good ventilation and is absolutely vermin-proof. Cover barrel with old tin roofing or spouting, so as to make it rain-proof and prevent the sun from warping it. Of course, a coat of paint will add to its attractiveness, but it is not necessary for practical purposes. Runs of any size made of wire netting can be attached to the barrel, and with netting over the top of runs the chicks are safe from crows or the annoyance of grown chickens. Barrels and runs can be easily moved to fresh ground. The runs are made substantial by the addition of a few stakes driven into the ground to support the wire netting.

For feeding dry mash we use a box two inches deep at sides and three and one-half inches deep at ends, seven inches wide and forty-two inches long, inside measure. For feet, have four pieces one inch square and twelve inches long. Nail these to ends of box, having top of three-and-one-half-inch ends, eight and one-half inches high. For top have board five inches wide nailed onto cleat at each end of top, to prevent its slipping out of place. This trough keeps the feed clean, and chickens do not scratch it out.

B. F.

Spaghetti, Dinner Dish

Cook one package of spaghetti in boiling water, to which has been added enough salt to suit one's taste. Cook until tender, usually about one-half hour is long enough. Drain the water off the spaghetti and serve with the sauce.

Sauce—One cupful of suet, finely cut up; two onions, and two cupfuls of ground beef. If it is impossible to secure beef, other lean meat may be substituted. Fry these together until brown. Add one can of tomatoes, one tablespoonful of chili powder and one-half cupful of water. Stir this thoroughly, and add one tablespoonful of flour, which has been mixed to a smooth paste with water.

G. C., Ohio.

Discoloration from Bruises

To prevent a bruise from being discolored, apply to it a cloth which has been wrung out of water as hot as can be borne comfortably, and change it as it becomes cold. If hot water cannot be procured, the next best thing is to moisten some dry starch with cold water and to cover the bruised spot with it.

Mrs. J. J. O'C., Washington, D. C.

What Someone Says of Us

I wanted to make a new kind of jelly, and didn't know just how to proceed; but I found an old FARM AND FIRESIDE, of thirteen years ago, and there was the very recipe I wanted, supplied by "Maida McL." This is an argument for keeping files of all farm papers.

C. E. D., Maryland.

Baked Apples with Chestnuts

Select firm cooking apples, and core as large a hole as possible without actually wasting the apple. Fill the cavity occupied by the core with boiled and skinned chestnuts. Pour a syrup made from brown sugar, or, better yet, pure maple syrup, over the apples. Bake and serve with plain or whipped cream.

Mrs. J. M. C., Ohio.

To Save a Saucepan

I found out something new this morning, and as I've never seen it in print, will give it to FARM AND FIRESIDE readers. Many farmers know the advantage of copper rivets and burs in repairing harness. This morning the steward wanted me to stop a hole in a granite saucepan for him, so in my "diddle" bag (or button and sewing bag—handy thing to have aboard a ship) I had a few copper rivets and burs. So



I put the rivet in the hole, put the bur on, and bradded the rivet close with the bur on the outside. I put water in the saucepan, and it was as tight as a bottle. But for the above the saucepan would have gone to the junk-shop or condemned box.

E. B. C., Florida.

Keeping Food Warm with Hot-Plate

My gas hot-plate stands on top of the cook-stove. When I desire to keep food warm after being cooked, the food is placed in dishes and set in under the burner, which is kept lighted. An iron lid from the stove is placed over the flame, which is turned low. The heat is thrown down upon the dishes containing the food, resulting in a nice warm meal for one who is a late comer. I likewise heat my jelly-glasses in this warmer instead of filling with hot water. They are kept warm with one burner while the jelly is cooked over the other. Often fruit-jars are turned upon their sides, and heated this way. A gasoline-stove resting upon the top of the cook-stove could be used in the same way.

E. O. S., Ohio.

To Repair a Hatpin

If you should lose the setting from your hatpin, a good way to repair the damage without taking to a jeweler is to buy sealing-wax, either light blue, dark blue, pink or any attractive color which will harmonize with the hat trimmings. Melt it, and drop it slowly into the setting. This makes a beautiful setting at very little cost.

P. H., Ohio.

Cleaning Lace Yokes and Sleeves

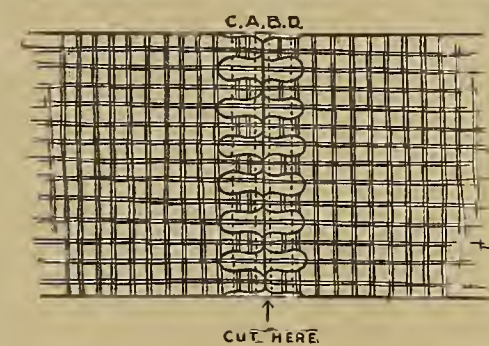
No difference how fine the lace or net is in your waists, the following will restore the material to its pristine freshness. In one cupful of gasoline work enough flour to make a very thin starch. Stuff the dress or waist with towels, sheets or any old white goods to preserve the shape as much as possible in a made article and prevent the starch from moistening other parts. (Do not work where there is fire.) Dip a white cloth into the mixture, coat the lace thoroughly; allow it to dry. Use a soft brush to sweep the flour from the lace. By shaking the garment, every particle of flour will fly from the goods. Once pressed, the result is equal to the best city dry-cleaning.

M. S. H., Ohio.

New Way to Finish Rag Carpets

This is the way we finish the ends of widths of rag carpet, instead of hemming the edges. Our plan is much better than a hem, because it lies flat (there being no double thickness), and it is easier to tack the carpet to the floor.

Then, too, the work can be done on the machine, which is much easier and quicker



than hand sewing, and the edges never ravel. The illustration represents the width of rag carpet to be cut. The double cross-lines are the warp, and the spaces, the woven rags. After weaving the desired length, take it to the machine, and, with a long stitch, stitch down the four rows (indicated by the dotted lines C, A, B, D.), then cut on line indicated by the arrow.

Take each width, and, by turning it in the machine while sewing, make an irregular curved stitching across the long straight line of stitching on each side. It never comes out.

Mrs. W. T. G., Missouri.

Attractive Crocheted Yoke

[CONTINUED FROM PAGE 26]

crochet in fourth stitch. *Chain three, long crochet in every fourth stitch. Repeat from * to end of front. Turn.

Second Row—Make five single crochets over chain of three of previous row. Turn. Third Row—Make one single crochet in the backstitch of every chain of previous row. Turn. Now make single crochets in backstitches.

Fourth, Fifth, Sixth Rows—Like third. Seventh Row—Six single crochets (one in each backstitch of next six single crochets of sixth row). Chain six, *skip six single crochets of sixth row (making slit for button), single crochet in each of next forty single crochets of sixth row. Repeat from * to end.

Eighth Row—Single crochet in each single crochet, also in chain-stitches of previous row.

Ninth, Tenth, Eleventh Rows—Like third. Twelfth Row for Scallop—Fasten with slip-stitch at top of yoke at base of first long crochet or its equivalent of chain-stitches; chain ten. Turn. Fasten with slip-stitch to second picot of previous spoke. Turn. *Three single crochets over chain, one picot of four chains, repeat from * three times more, then six single crochets over chain. †Four single crochets over long crochet, one single crochet in next stitch. Ten chain, turn, fasten with slip-stitch between third and fourth single crochets of group of six of scallop. Repeat from † to †. Seven single crochets in next seven stitches. Chain ten, fasten with slip-stitch, repeat from † to †.

Seven single crochets in next seven stitches. (This will turn corner.) Chain ten, fasten with slip-stitch; repeat from † to †. Make scallops along entire side front.

For under lap, stop at bottom of front. For upper lap of front, continue to make scallops completely around the front—the two sides, as well as top and the bottom.

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Some New Books And a Word About Them

Books That Interest Women

WOMEN AND LABOR, by Olive Schreiner, is one of the most-talked-of books by a woman, for women. While Mrs. Schreiner believes in woman's rights, still the book is no mere advocacy of the ballot. It is a calm, clear-voiced argument in favor of women's right to labor, not as a wageless slave to a man who has bought her, as in old days, or who has married her, as in modern times. Mrs. Schreiner, herself a farm woman, asks that women be allowed to earn a living wage, whether as housewives, lawyers or farmers. And she proves, with clear logic and historical fact, that such a status, instead of lowering her feminine attractiveness, will cause her to be all the more sought after. The book, already in the fourth edition, is published by the Frederick A. Stokes Company, New York. Price, \$1.25.

JOHN, THE UNAFRAID. No author's name is given to this book. It is a plainly written, unsectarian résumé of the Christian religion, as set forth in the New Testament. Furthermore, it is written, not as a treatise, but in the form of a most readable story of the man John. While all the world trembled at the prophecy of its end within forty-two months, John, alone, of all men, went on, unafraid.

Not only is the book wonderfully good reading, but its attractive binding of purple and its box of the same regal color make it a very suggestive Christmas gift. It is published by A. C. McClurg & Co., of Chicago, and costs \$1.

SOYER'S PAPER-BAG COOKERY. When Nicholas Soyer first cooked a chicken in a foolscap bag, either he revolutionized cooking—or he didn't. However you feel about it, you may be pleased to read his cook-book, which tells of the possibility of cooking in paper bags, rather than in the afterwards-to-be-washed-and-scraped skillet. Besides that, his cook-book contains new recipes and suggestions that will interest the housewife. Furthermore, each woman will have to decide for herself the practicability of the new method. The book is published by Sturgis & Walton Company, 31-33 East 27th Street, New York, and sells for 60 cents.

For the Young Folks

TRACK'S END, by Hayden Carruth. Mr. Carruth calls this a boy's book, ages ten to

eighteen. But anyone, from grandparents down, will enjoy it. A winter of blizzards, robbers, wolves, faced alone in the territory of Dakota by young Judson Pitcher, is the story's outline. Mr. Carruth has lived there, so he knows. But the details are so interesting and unexpected that a mere review could not do it justice. It's a splendid book for a Christmas gift to a boy or a girl. And a copy of it should be in every school library, for the girls are sure to like it as well as their brothers. The publishers are Harper & Brothers. There are nine full-page pictures drawn by Clifford Carleton. Price, \$1.

Of Interest to Farmers

HEALTH ON THE FARM, by H. F. Harris, takes up the question of hygiene and sanitation, making application of their principles to the farm and to farm life. Pages, 306; price, 75 cents, net; Sturgis & Walton Company, 31-33 East 27th Street, New York City.

POWER AND THE PLOW, by L. W. Ellis and Edward A. Rumely, is the first attempt at a complete scientific statement of the problems arising from the introduction of mechanical power in general farming operations. Plowing is thoroughly considered. Pages, 318; illustrated; Doubleday, Page & Co., New York City.

BREEDING FARM ANIMALS, by F. R. Marshall, takes up the questions relating to this subject in both a scientific and a practical way. Horses, cattle, sheep and swine are discussed. Pages, 287; illustrated; The Breeders' Gazette, Chicago, Illinois.

WEEDS OF THE FARM AND GARDEN, by L. H. Pammel, is a thorough treatise of the subject as it affects American conditions. Pages, 281; illustrated. Orange Judd Company, New York.

MEADOWS AND PASTURES, by Joseph E. Wing, contains a store of practical information on this subject, so common, yet so neglected. Pages, 418; illustrated. Sanders Publishing Company, Chicago.

HOW THE WORLD IS HOUSED, by Frank George Carpenter, is the third volume of the series of Readers on Commerce and Labor. In a style suitable for children he takes the reader over the world in an interesting way. Pages, 352; illustrated; price, 60 cents. American Book Company, New York.

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The Gift Club's Mail-Bag

By Jean West, Secretary

HERE are a few letters taken at random from the mail-bag of The Gift Club. You will be interested in reading these enthusiastic notes from other farm girls and women, who, through their membership in The Gift Club, are able to earn all sorts of dainty little "extras" both for themselves and their homes.

This letter has just come to me from a club girl who lives in South Carolina:

DEAR JEAN WEST:

You don't know how glad I am that you have started this splendid club for us. It is just the kind of club that I've always wanted to belong to—only I never knew before that it would be possible to organize one like it. I like the motto and the whole idea of the club so much and you make it so interesting for us.

And here is a wee little note from a busy mother in Ohio who is glad that she is one of us:

DEAR MISS WEST:

I haven't time to write much of a letter. I'm so busy. But I do want you to know how much I appreciate those beautiful silver knives and forks that you sent me last week. They came in handy at Thanksgiving. Next I want those linen doilies.

What particular gift do you want? Is it a pair of lace curtains for the sitting-room, or a comb, brush and mirror for your bureau? Here they are in The Gift Club waiting for you. Little Miss Florence M., who lives in a big, roomy old farm-house in West Virginia, has just earned the silver toilet-set. Just listen to what she says about it:

DEAR MISS JEAN WEST:

Thank you a thousand times for that perfectly beautiful toilet-set that just came. The comb and brush are just the right size, and the mirror is so clear and good. The Gift Club is certainly the best ever! I'm delighted with it. It doesn't seem the least bit like work, and you do give us such lovely things. My heart is set on that locket and chain. I must have that next.

And here's a letter from a New York State mother. She will not mind if I show you her letter:

DEAR MISS WEST:

The Gift Club is certainly a boon to me. I'm getting all my Christmas presents through it. My little daughter will jump with joy when she sees the ermine set that I have for her. And just to think that it didn't cost me a penny! That's the wonderful part of it! I'm going to give the knife, fork and spoon set to my ten-year-old niece. But I haven't decided about that pocket-book, whether I'll keep it for myself or give it to my sister. It's so fine that I hate to part with it!

A splendid idea, Mrs. J. K.—to get your Christmas gifts through the Club! Perhaps others of our members will profit by reading your letter.

Miss Minnie D., who teaches a district school in Wayne County, Indiana, writes me this:

That white linen shirt-waist is just exactly what I wanted. I had no idea that it would be so pretty. How can you afford to give us so many lovely gifts, Miss West? I am quite in love with the Club.

There is room in The Gift Club for every girl and woman reader of FARM AND FIRESIDE who wants to earn for herself all the little luxuries that are so hard to squeeze out of the family income. We could, of course, put you in the way of earning the money to buy these things for yourself, but we go farther than that. We actually buy these beautiful presents for you, and give them to you free of charge, in return for just a little of your spare time devoted to the Club's work.

There are no dues or expenses of any kind in The Gift Club—nothing but gain to you. I am very eager to initiate you into the mysteries of our Club, and I hope that you'll write and ask me to tell you all about it. Remember, your letter of inquiry commits you to nothing. Address

Jean West

Secretary, The Gift Club,
FARM AND FIRESIDE, Springfield, Ohio.

The Road to Happiness

[CONTINUED FROM PAGE 22]

The moment the hurried good-nights were said and she and her mother were alone in the hall, Mrs. Taylor turned to Tompkins, questioning:

"Has Mr. Taylor come in yet?"

"No, ma'am."

"Or has he telephoned?"

"Not that I know of, ma'am."

"Very well, Tompkins, good-night."

The girl admired her mother's coolness and unruffled manner, and yet shrank from the suggestion of practice in duplicity which it conveyed.

"Mother," she whispered, as they mounted the stairs, "Father won't let them go to Norman, will he?" Her thoughts seemed to circle endlessly about the one theme.

"Of course not!" Mrs. Taylor's nervousness now flared out in her sharp voice. "You needn't be so selfishly concerned about that! I'm wondering to whom they will go! It seems to me that we've already borrowed from everybody we don't owe!"

Frances quailed. Her mother had never indulged in such reckless confidence before. "Are the debts very large?" she murmured, flushing. "I had better countermand the order for most of my trousseau and be married in my tailored suit. I suppose every little thing makes a difference."

Mrs. Taylor laughed helplessly at her daughter's ignorance of money. "You won't have any wedding or any trousseau unless your father arranges matters. You seem very certain that Norman will make peace. A man doesn't like to be played with!"

Quick tears stood in the girl's eyes. "I'm trying to feel certain," she choked. "It isn't possible that I will be so terribly punished—just for—being foolish." With her words her fears seemed to increase. "He will understand that I'm sorry! He will come back!" she sobbed.

"Well, all I want is to see you provided for," her mother answered, in what she felt was a martyr spirit. "Your father and I will just eke out our existence!"

"Oh, no! What is mine is yours always! You will live with us!"

"Nonsense," Mrs. Taylor began to cry. "You don't suppose I'll live in New York, to be sneered at and pitied? Egypt won't be far enough away!"

With such talk they beguiled the time while they waited for Mr. Taylor; but when three o'clock came and he still did not appear, they retired, convinced that he had gone to a club for the night. Each was vaguely uneasy, but neither admitted the fact. It was absurd to be so easily alarmed! They were nervous and excited, that was all!

However, at nine o'clock the next morning, as no word had been received, Mrs. Taylor telephoned all of the places her husband frequented—the office, bank, clubs, etc.—but nowhere had he been seen, and she had to veil her inquiries carefully so as not to excite suspicion.

As she left the telephone, Frances turned from the window, where she had been standing for hours, to say, "Mother, several men have been loitering around the house for ever so long. What do you suppose they want?"

Mrs. Taylor hurriedly surveyed the street from behind the protecting curtains.

"They're here to serve papers on your father, the minute he appears! I don't know what they mean by it, but that's what they want to do! It's happened before! Oh, dear, they mustn't catch him! Do you suppose they think he's at home?"

"What will happen—if they—get him?" Frances demanded, the watching men filling her with an unreasoning terror.

"Don't ask such awful questions," her mother faltered. "You ring up the office once more. I—can't talk—without crying."

The girl went to the telephone, her brain whirling. No training had ever taught her to bear adversity or suspense calmly. Now she was almost overmastered by unreasoning fear. Unhooking the receiver, she waited, her mind wandering to Norman again. What was he doing? What was he thinking of her? Then, suddenly, she was recalled to herself by hearing Central repeat in tones of exasperation, "Number, please! Number!"

Startled, hardly conscious of what she was saying, she gave some figures, and waited again.

"I—I want to speak to Mr. Taylor, please," she faltered, when the connection was given. "Will you please see if he's in the office?"

"Oh, in the private office!" came the answer. "I saw someone go in. Just a moment please, Miss Taylor. I'll ring." Again the pause, then suddenly a voice sounded through the telephone.

"Is this you, Father?" she cried. "What! Norman! You! Oh—I—made a mistake!" and she dropped the receiver in terror and fled from the telephone.

"What is it?" Mrs. Taylor rushed to her distractedly. "Nothing has happened, has it?"

"No! No! I—made—an awful mistake! I—I was—so mixed—I couldn't think—and I—must have asked for Norman's number—and—of course, I've called up there so often—the girl knew me—and gave me the connection. He answered! Oh, dear, what must he think?" She sobbed dismally, the last vestige of her self-control shattered by the unexpected sound of Norman's voice. "Why doesn't Father come? I can't stand this suspense much longer!"

Mrs. Taylor rapidly became frantic. During the long day no word arrived, and by evening the terrible conviction swept over them that, in addition to debts and process-servers, something was wrong. No one had seen or heard from Mr. Taylor since the night before. He had disappeared!

By the following morning panic reigned in his office. The long expected crash came! The news became public property, and soon extras were being peddled through the streets!

Mr. Taylor's lawyer tried to stave the resistless tide of creditors that appeared to

engulf all available assets, but when in the afternoon he went to consult with his employer's wife, he brought small consolation. They were irretrievably ruined!

At this news, Frances crept away to her room, stunned. It was too late to write her letter now. Norman would only think that she was trying to win him back for mercenary reasons! Mr. Felton, the lawyer, had said that no one had made any demands on Mr. Norris so far; but that didn't matter now. A terrible sense of helplessness swept over her, as from the next room she heard the sound of her mother's continuous sobbing, blended with Mr. Felton's cold, precise voice.

"You will have to sell out as quickly as possible," he was saying.

"I don't know anything about business," Mrs. Taylor lamented. "You will protect our interests, won't you? I don't know where to go or what to do! How could Joseph leave us this way!"

Mr. Felton knew Mrs. Taylor well, and there was little sympathy for her in his heart. Year by year he had seen his client mortgaging his property, ruining his prospects, all because of the never-ending "home expenses." So now he took his leave as quickly as possible, thinking cynically of the disastrous effects of petticoat rule.

As soon as the lawyer had gone, Frances came back to her mother's room, and sat silently and apathetically beside her.

Both women were pondering over Mr. Taylor's probable fate, weighing hopes and fears, and realizing for the first time that he had been the prop on which had rested the whole weight of their affairs.

Frances, with the optimism a happy life had taught her, clung to the belief that her father was somewhere near-by, necessarily hidden, perhaps for some mysterious business reason, but working for them as he had always worked, quietly, unobtrusively and, in all probability, successfully. He would surely come back, and with him would return the old peace, the old order. Suddenly the retiring little man loomed majestic before her vision, and she longed unspeakably for his presence. She had always thought that her mother was the mainstay of their lives, but now, that it was withdrawn, she realized with bitter regret whose had been the supporting arm. Her father had been weak, perhaps inexcusably weak; but the memory of that was wiped out in the consciousness that he had had to bear for years the responsibility that was crushing them in a few short days. Tender pity filled the girl's heart. What new trial was he suffering, even then perhaps, for their sakes?

Mrs. Taylor indulged in no such reflections. Utterly selfish, yet loving in a weak, ineffectual way, her thoughts were far more often filled with wild dread that her breadwinner had been taken away than with genuine sorrow for the lost husband. That something terrible had happened, she had not the slightest doubt, yet she had refused to give Mr. Felton orders to set the police machinery in motion, for she felt that she could not bear the confirmation of her fears. Every time she heard an unexpected noise her heart stopped beating.

So for a long time they sat side by side in the beautiful room, two so-called cultured, educated women, totally helpless, shrinking desperately from meeting face to face the workaday world.

Suddenly the telephone-bell rang sharply. Mrs. Taylor cried out, and Frances started as if she had heard the explosion of a cannon, but neither of them made a move to answer its summons; they simply sat looking fearfully at the little instrument, as the shrill, imperative peal went on, insisting on being heard.

"You—you go, Frances," Mrs. Taylor finally whispered with white lips. "Perhaps—it's news!"

[TO BE CONTINUED]

For the Tree and Table

[CONTINUED FROM PAGE 28]

Paste one edge of a strip on the inside of the edges *c* and *d*, and carefully pull out the crinkles of the other edge to form a little ruffle at the top of the bag.

Next paste another strip all around the outside of the bag. The middle must come just over the edge of the cardboard. After this dries, the two edges are pulled open to form a double ruffle.

A variety of decorations may be arranged by cutting out the flowers and designs from fancy crepe paper.

For the Christmas box, take a piece of thin paper, and lay it over the drawing marked 1. Trace the pattern exactly as you see it here. Fold a piece of ordinary wrapping or writing paper. Lay your pattern on this paper with the dotted line over the folded edge. Pin them in this position, and cut carefully along the outline of the leaves that you have traced. You will find a rosette of six holly-leaves.

Trace 2 in the same way that you did 1. When this pattern is cut and opened, you will find it has six spokes. Trace also the small lines which you will cut for slits to pass the ribbon through. These can be best cut with a sharp penknife. This will be of red paper.

Now, crease the leaves slightly so they will turn up just a little way as they stand flat upon the table.

Fold the six spokes of the red papers sharply on the lines indicated, so they will stand quite upright. Thread a large needle or a bodkin with red string or narrow ribbon, and string through the slits, tying fast in a tiny bow; this will hold the spokes in a little cuplike form.

Paste each little cup of red into a circlet of the green leaves, and you have a charming holder for nuts or candy fit for the Christmas table.

Possible Pin-Money For Farmers' Wives

WOMAN'S HOME COMPANION, which is published by the publishers of **FARM AND FIRE-SIDE**, is a big and beautiful periodical—the best in its field. Every woman in a **FARM AND FIRE-SIDE** home would enjoy it and could make practical use of it. Its stories and articles and illustrations furnish the best entertainment available. But in addition it performs a time-saving and money-saving service by giving valuable household, dressmaking and cooking suggestions—suggestions worth money, yet free to every subscriber. Thousands of women save work and money by following suggestions made to them in the **COMPANION**.

THERE is a special point, however, of advantage to the subscriber. **WOMAN'S HOME COMPANION** contains three departments to which housewives may contribute their own ideas, and, if the ideas are acceptable to the editor, they are paid for. **In the past twelve months 674 women have sold their housekeeping and other ideas to the COMPANION.**

Take, for example, "The Exchange" department, and think what you might do for it. It is a department of household news—contributed by subscribers, and paid for by us in cash. The items of news are short. Here, for instance, is a sample item written by a Wisconsin woman and accepted recently:

When doing fine sewing, or embroidering, or anything that requires close attention, the strain on the eyes will be much lessened if a dress or apron is worn of a color contrasting with the work in hand. If it is white, wear a black apron; if black, wear a white one, especially when sewing at night. *Mrs. H. C. N., Wisconsin.*

In the December **COMPANION** it is announced at the head of "The Exchange" department that every month prizes are awarded to contributors of the best ideas:

\$5.00 for the best original item (not illustrated) of general interest and helpfulness in solving housekeeping problems.

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\$3.00 for the second best.

All other contributions, whether illustrated or not, are paid for at the rate of \$1.00 each.

THIS is the point that we want to emphasize—that you will not only enjoy **WOMAN'S HOME COMPANION** and make practical use of it, but that you will also find in it departments made up entirely of practical suggestions bought from readers.

It would pay you to begin taking **WOMAN'S HOME COMPANION** immediately. You will save many times its cost in the practical service it will perform for you, you will enjoy its great program of entertainment, and perhaps you can contribute to it, also.

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I have seven head of horses and they are rolling fat. When I hitch them up they are so high-lived, that I can hardly do anything with

them. They are always up and ready to go. Everybody wants to know what keeps them in such good condition and I tell them it is your Stock Food that does it. I have a team that is equal to your champion team on your envelopes. They are fine and eat Stock Food three times a day. I thank you for your past favors, and remain,

Your agent, W. M. RANDLE.

Krenmling, Colo.

Wilbur Stock Food Co., Milwaukee, Wis.

Gentlemen:—Enclosed find draft for \$13.00 in payment for Stock Food. I have used two pails of your Stock Food; it is certainly fine. I have used almost everything on the market, but nothing to compare with the Wilbur Stock Food. My milk cows, calves, hogs and colts, after feeding three days, I noticed the change. It has saved me many

a sack of grain. My horses are slick and nice. They are working hard every day. Will enclose watch certificate, and thanking you for past favors, I am,

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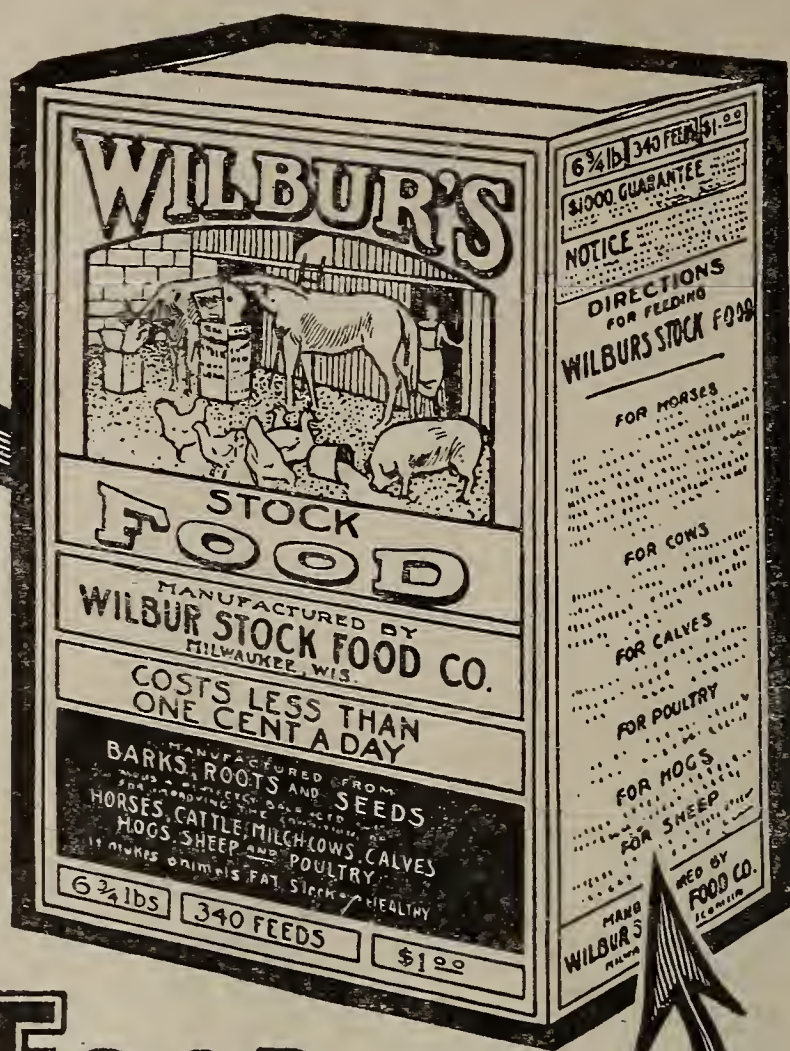
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DECEMBER 23, 1911



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With the Editor

THIS country has few or no shrines or holy places in the Old World sense. It has no history in the twilight of which lived martyrs, saints or deities. We Americans, therefore, have difficulty in understanding the feelings which impel Moslems to dare plague and shipwreck and all the evils of the sea and deserts for the sake of worshipping at the shrine of Mecca. We cannot understand how they feel at the thought of an unbeliever's eye profaning the sacred Black Stone of the Kaaba. It is hard for us to realize the uplift of spirit which the Hindu feels when he bathes in the Sacred River. We have difficulty in taking in the significance of the thousands of shrines which stand by the roadsides and mark the hills and astonish one in the by-ways of Europe, before which the people of the lands of shrines pray with uplifted hearts.

But I think I understand how shrines are consecrated, and perhaps something of the feelings of those who thrill to their meaning. For I have, as I write this, just returned from the consecration of a purely American shrine. It is a beautiful cut-stone temple, built in the Doric mode, and the sacred thing there enshrined is the rude log cabin in which Abraham Lincoln was born.

I feel that I understand more fully than I have ever done the wonderful life of Lincoln. I have seen the very cabin in which he first saw the light and in which he lived until he was eight years old. My feet have trod the very soil in which were imprinted the tracks of his little feet as he toddled about before the door. I have stepped over the very log on which he bumped his head in crawling out or in.

I have seen how very, very poor was the Lincoln family, and am able to realize as never before the wonder of his rise to power against adverse circumstances, the marvel of his intellectual greatness, the reason why he loved the poor and understood the lowly, and the trust which the people, north and south, placed in him. Shrines, I have come to feel, have their value.

The Lincoln farm is in "The Knobs," about sixty-five miles southwest of Louisville, near Hodgenville, Kentucky. We left Louisville at nine A. M., and for a part of the distance passed through the celebrated bluegrass region of Kentucky—rich, abundant in production, valuable.

I wondered if the history of the nation would have been the same if Lincoln's father had had one of these instead of the poor farm in "The Knobs." Could he have risen so high, had his origin been less low?

IN 1861 a farmer named Davenport—am writing from memory only—possessed this farm. The old cabin was unfit for habitation, I presume, and he took it down log by log, and rebuilt it about fifty yards away. Lincoln was then president—had just assumed the office—and Mr. Davenport was so much alive to the importance of a president's birthplace that he marked it with a big round post.

A few years ago, a distilling company began moving in the matter of buying the Lincoln farm, and erecting there a distillery. "Abraham Lincoln Whisky" made on the Lincoln farm would fit into advertising finely! But before this disgrace could be inflicted on the American people, certain wealthy and public-spirited men—Mr. Robert J. Collier of *Collier's Weekly*, Mr. Clarence Mackay, and others, bought the farm, and started the movement for making of the cabin a shrine free to the people, where patriots for all time may pay their devotion to the sublime patriotism of Lincoln.

They reverently took the old cabin down, log by log, and reassembled it on the spot where it was built. There are about three hundred logs in it, of which all but twenty-six are the same old logs Lincoln's father cut and built into the house—the marks of his ax are still there. The twenty-six are old logs from some other cabin. In the midst of the cabin stands the post Mr. Davenport set there in 1861.

THE hut in which Nancy Hanks Lincoln gave birth to the savior of his country is not more than twenty feet long, nor more than fourteen feet wide. It had no partition, no window, no floor. You, my friend, would not stable your cow in it. Its only ventilation was up the chimney, and its only light came in through a swinging hatch which served in place of a window, and from the open door. On some sort of bed she lay with the wonderful baby in her arms, and, no doubt, looked out at the stars through the chinks in the roof, and maybe heard the wolf howl and the panther scream in the winter night outside. I suppose a fire was kept burning in the fireplace, which was built of sticks, and that the flickering light it threw on wall and rafter made vision possible by night as well as by day. There was no trained nurse. Whenever the door was opened, a draft must have whirled through the whole hut. But both mother and son lived.

I was rather sorry that none of the eloquent speakers of the day said anything about this rich poor woman lying in her squalid bed nursing the giant who held the Union together and freed the slaves. That would have been my speech had I been privileged to deliver one.

The Lincoln Farm Association has built a beautiful worm-fence, of old rails, all about the farm on which the Rail-Splitter was born. It has invested \$50,000 in bonds, the interest of which will be spent to keep the place up. Governor Willson of Kentucky said that he believed the state would add something to this income, so that the farm might gradually be made into a park. It is about two miles from the railway station, and an automobile highway is projected to pass by it.

The farm is not a good one. It is cut up into small slopes, some of them rather steep, by a succession of pit-like hollows. The old fields are gullied and washed so that the red clay—so common in the South—stands out bare and sterile. The ridges look like good fruit-land; and I noticed some good corn-fields in the neighborhood. But when I asked the driver how much land is worth about there, he replied, "It ain't worth nothing, but it'll cost you about \$50 an acre to buy it!"

It is so uneven in surface, so cut up with little hollows, that it doesn't seem to me likely ever to be very valuable—but it is rather better than I had expected to find it.

Perhaps it is best that it was not so good as to hold Lincoln's father as a permanent occupant. Perhaps it needed the flatboating, the rail-splitting in Indiana and Illinois, the Black Hawk War, and all the rest to make a Lincoln.

I SHALL never forget that day—the special train, the carriages, the bands, the Boy Scouts, the mounted police from Louisville, the militia, the President and his suite, the orators from afar, the splendid speeches—and on the hill the great granite temple, standing "four-square to every wind that blows," and in it the little, rude, rough hovel, the sacredest building on American soil. And so I have tried to take you there with me for a few minutes.

Robert S. Squire

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ABOUT ADVERTISING

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Mention FARM AND FIRESIDE when you write to our advertisers, and we guarantee you fair and square treatment. Of course we do not undertake to adjust petty differences between subscribers and honest advertisers, but if any advertiser in this paper should defraud a subscriber, we stand ready to make good the loss incurred, provided we are notified within thirty days after the transaction.

FARM AND FIRESIDE is published every other Saturday. Copy for advertisements should be received twenty-five days in advance of publication date. \$2.00 per agate line for both editions; \$1.00 per agate line for the eastern or western edition singly. Eight words to the line, fourteen lines to the inch. Width of columns 2 1/2 inches, length of columns two hundred lines. 5% discount for cash with order. Three lines is smallest space accepted.



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Canadian, 1 Year . . 75 cents

Subscriptions and all editorial letters should be sent to the offices at Springfield, Ohio, and letters for the Editor should be marked "Editor."

Silver, when sent through the mails, should be carefully wrapped in cloth or strong paper so as not to wear a hole through the envelope.

Vol. XXXV. No. 6

Springfield, Ohio, December 23, 1911

PUBLISHED
BI-WEEKLY

More About Fertility Futility



OMMENTS which we recently made on the results of experiment station tests of ready-mixed commercial fertilizers have brought forth some criticism pro and con. We said that users of fertilizers ordinarily pay for the low-grade stuff forty-five per cent. more than it is worth; for the medium grades, twenty per cent., and for the high grade, eleven per cent. "In other words," said we, "you are stung anyhow, but stung four times as deeply with the cheap fertilizers as with the high-priced grades."

"Are we to understand from this," says one, "that we are to buy no fertilizers?" By no means. More fertilizers must be bought year by year. The problem of keeping up productiveness for anything now to be seen is mainly a problem of buying fertility to replace that lost. Barn-yard manure, whether east or west, needs to be balanced up by the addition of a commercial fertilizer. The manure is made much more profitable by such balancing up. Where one man buys commercial fertilizers, ten should do so.

"Then," says our inquiring subscriber, "should we refuse to buy the ready-mixed fertilizers?" By no means. Whether you mix your own fertilizers or buy them ready mixed is a matter to be worked out with pad and pencil. In the Maine potato-fields, for instance, most of the growers seem to have made up their minds that they can get fertilizers which best suit their peculiar wants by having them mixed at the factory. The country over, most farmers prefer to buy the ready-mixed fertilizers, though many insist that they can mix it themselves and save money.

Factories so located as to collect the ingredients economically ought to be able to buy in great quantities and mix at a cost which, with good management, should save the farmers money. Anyhow, they are doing a large share of the business, and are likely to keep on doing it. Many of the commercial fertilizers are the by-products of furnaces, packing-houses, and the like, and would be thrown away if not bought by farmers. There is no reason to believe that they are sold for more than they are worth except as profits pile up on them in passing from hand to hand.

The "futility" referred to lies largely in the buying of fertilizers after their passage through the hands of too many middlemen, and in buying them without reference to their available plant-food. The Florida station found the farmers paying on the average eleven per cent. more than the goods were worth for high-grade fertilizers. They ought to be able to save that eleven per cent. by clubbing together and buying in car-load lots—whether ready-mixed, floats, or what not. The forty-five per cent. which represents the extent to which they are stung on the low-grade stuff they can save by not buying that sort of stuff. It contains too much trash ground up as "filler."

"The cheapest filler is the earth of the field, and the cheapest mixing medicine is the harrow." Therefore, buy plant-food, not filler.

Learn to know the fertilizer dealers.

Buy more fertilizers rather than less. Balance up the manure with it.

Buy with discrimination.

Find out what your land needs, and buy it.

Buy it in car lots. If you can't do this alone, get your neighbors to go in with you.

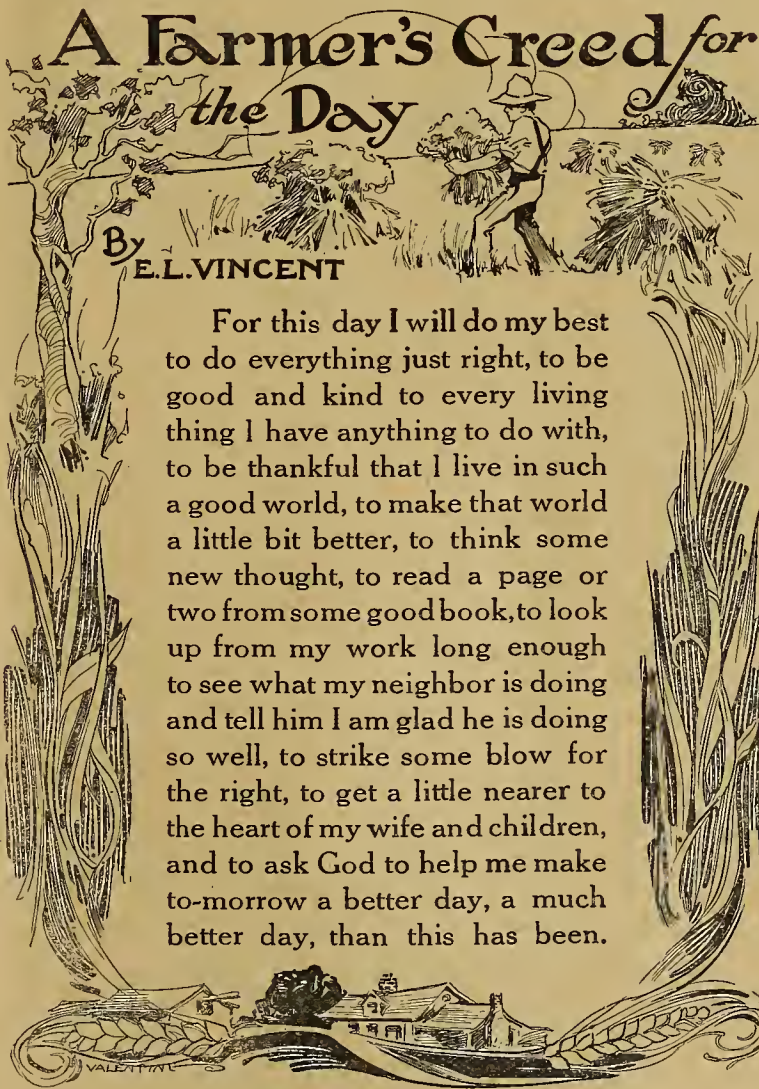
And if you never have used fertilizers, make a judicious experiment with a few acres next year. And avoid "fertility futility."

Experiments abroad seem to prove that fowl diphtheria and fowl pox are caused by the same germ.

Nearly all the lands in the Truckee-Carson irrigation project in Nevada have been taken up, and 40,000 acres are now under cultivation.

Annexation Foolishness

HAVING made a very unwise remark in the reciprocity debates in Congress, Hon. Champ Clark seems to be proceeding on the theory that the remedy for involuntary foolishness is premeditated foolishness. He is reported to have said at Fremont, Nebraska, the other day that "nine tenths of the people of the United States favor the annexation of Canada." In the sense in which



this expression will be understood, this is absolutely untrue. There is no sentiment at all in the United States for "annexation" as the word is understood in history and in diplomacy. Many Americans believe that the two nations may sometime form a union; but a voluntary one which would be as much the annexation of the United States to Canada as of Canada to the United States. Such a union would be like that of England and Scotland. "Annexation" means some such affair as the acquisition of Texas, or of Tripoli by Italy. Nobody now believes that a union with Canada can come for many decades, and nobody expects or desires union by other than common desire of the two peoples.

Mr. Clark may be a statesman, but his utterances on this question do not prove it. They more resemble the actions of the feeble-minded individual who rocks the boat or points the "unloaded" gun. They scarcely indicate presidential size. And the fact that in his interview he seems to use "annexation" in an unobjectionable sense does not mitigate the offense. A man, either in the position Mr. Clark occupies, or the one he seeks, should not make use of the word "annexation" as descriptive of our feelings as a people toward Canada.

Invite in the Musicians

TETRAZZINI, the prima donna, sang in a park in San Francisco one day last summer, passing from group to group, from crowd to crowd, clad in the costume of a street singer—and the people went wild over her. It was so wonderful to hear such a voice, not up on a stage, but right down among the people! And this reminds us that inventive genius has made it possible for us to invite Tetrizzini's voice into any living-room, no matter how humble, at any time.

One summer's day, not so long ago, two passenger trains were stalled by an accident, head to head, on the prairie of Alberta. Two hundred people were obliged to spend three hours in waiting. They left the dusty cars, and stood or sat or strolled about in the mellow sunshine, uneasy and fidgety—until from the window of a private car came the swelling tones of an aria sung in a magnificent tenor. It was Caruso singing "O So Pure" from Martha. Harry Lauder then gave the crowd his "I Love a Lassie." Blanche Ring also "obliged." It was a concert of stars. Time flew. The engine came on from Edmonton, and the "concert" broke up.

The stars were not on the private car; but their voices, were. The concert came from the horn of a talking-machine. The same music might have been enjoyed in the "sitting-room" of the most remote farm. The voices of the greatest singers and the marvels of execution of the most talented instrumentalists can be bought in the open market, and carried anywhere.

And not in the talking-machines alone is the opportunity for such enjoyment found. The mechanical piano-players are able to give us the best that genius has produced for us, whether we have musicians in the family or not.

Farmers are taking advantage of these inventions as never before. The Census Bureau tells us that eighteen establishments are now making phonographs and graphophones, and that over \$14,000,000 are employed in these establishments. If the making of music-boxes, piano-players, and the like, were included, the figures would in all probability be twice as large. We should be glad to see the demand greatly increase. The absence of music has always been a great lack in the farm life. It may be supplied in two ways—by the cultivation of the art of music, and by the introduction of the best music into our homes through musical machines.

To all who contemplate buying, a word of advice. Buy good goods. The cheap in this field is apt to be disappointing. Instead of a divine voice, one may get a diabolical screech. And buy only good "records." The filth of the concert halls is available; and many a home which would exclude a bad book seems indifferent to the more subtle evil of an evil song. Take advice of the best musician you know, if you do not happen to possess the knowledge necessary to a proper choice. But invite them in—Elman, Paderewski, Caruso, Tetrizzini, Nordica, Beethoven, Bach, Wagner—all the singers of the world. They are ready to visit you. Invite them, in the interest of pleasant life on the farm.

If mice and rats are allowed to live, they must live on something—and will be a loss to the farmer. But don't let them live.

Arizona had under irrigation in 1909 some 227,000 acres. She has available water for the irrigation of 800,000 to 1,000,000 acres. When the farming possibilities are developed, Arizona's farms will produce more wealth than her mines now do.

And she is at once perhaps the most arid, and one of the richest of mining regions in the United States.

Some Observations Made in England and Belgium

By an American Farmer



IT DOES not matter how intelligent or successful a farmer may be, he should make occasion for an extended vacation at least every seven years, in order to widen his vision and to see what others are doing, having particularly in mind to note, for instance, any improvements in methods and customs of other countries as to agriculture. With this end in view I decided to take a year off and to leave the farm to the management of my son, who is quite as capable of running it as his father, and whose constant companion he has been for over twenty years.

On the arrival of our ship in Liverpool, we found England to be grappling with a tremendous railroad strike that threatened to tie up all her traffic and might have proved a great nuisance to the traveler, but fortunately I was passed through the custom-house very quickly and caught a noon train to London. As I rode through the streets of Liverpool, I noticed most of the heavy teaming was done by tandem teams, that many of the wagons had only two wheels, and none of the horses had calks on their shoes (this practice, I learned afterwards, not being permitted in England). In winter dull, square calks are allowed on the hind shoes only. I suppose in America many would consider such a law a hardship, but when one sees the miles upon miles of splendid roads both in England and on the Continent, many of them covered with asphalt, showing not the slightest signs of being torn up in the middle by the sharp toe-calks of horses, as is the case so often with us, the value of the law is appreciated. It should be remembered, however, that in Great Britain and the Continent heavy draft-horses are never driven at a pace faster than a walk.

London is, of course, a wonderfully interesting city, and I could have stayed for months seeing something new every day.

However, I left there after two days, comforting myself with the thought that I would stop there again on my way home.

Farming is quite a different proposition in England than with us, and I must confess the English farmer has his American cousin beaten hands down on most things. In the first place, he lives better, and gets more enjoyment out of life. Let's compare, for example, a successful English farmer who is making a net income of \$2,500 a year with an American farmer of the same class.

Not far from Canterbury there was a grain farm of some 285 acres, of this acreage all but twenty acres were under the plow. The farm was, like so many of the English farms, rented, the family having been in possession for over one hundred years. The house, a large gray stone building, was ivy-covered, with a red-tiled roof (wood is seldom used for frame construction, covering or roofing) and stood some three or four hundred feet from the road, surrounded by a lawn of ample proportions, shaded by some fine old trees and beautified with shrubs and flowers.

One Farm Home in England

In response to my ring, a little maid, neatly dressed with a white cap and apron, opened the door, and showed me into the dining-room, which in many houses in England is used for a living-room. A cheerful soft-coal fire was burning on the hearth, and looked very inviting after a walk in the rain. While waiting for Mr. Bing, I passed the time making a mental note of the furnishings of this bright room and large hall through which I had entered. The floors were stone, laid in diamond-shaped squares and covered with rugs. The furniture, which consisted of a sofa, several arm-chairs and a desk, besides the table-chairs, was of old oak, plain but substantial. The dining-room table was covered with a heavy velvet table-cover of brownish color, and a silver vase in the center filled with flowers added color and fragrance. On the sideboard were a few pieces of old family silver. There were one or two good engravings on the walls, a bookcase filled with books, and pretty white curtains in the windows. In the hall was a fine old grandfather's clock, some seven feet high, a hall table, two hand-carved oak chairs, some nice rugs, old portraits, etc.

Mr. Bing greeted me kindly and invited me into his office (a room where the owner has his desk, guns, farm papers, samples of grain, etc., common in all English farmhouses), where we had tea, an invariable light repast at half-past four o'clock in England. This room, like the other, had an air of solid comfort; there was nothing showy or expensive, but it had the appearance of being lived in every day.

Mr. Bing did not work himself, but planned and directed all the work of his six men and four teams. On Sundays, or market days, he and his sister drive to Canterbury in a very smart two-wheeled trap, with a docked-tailed cob, and harness buckles glistening in the sun (there is a tax on carriage wheels in England, so many use two-wheeled carts). Here, then, is a farmer who enjoys life tremendously.

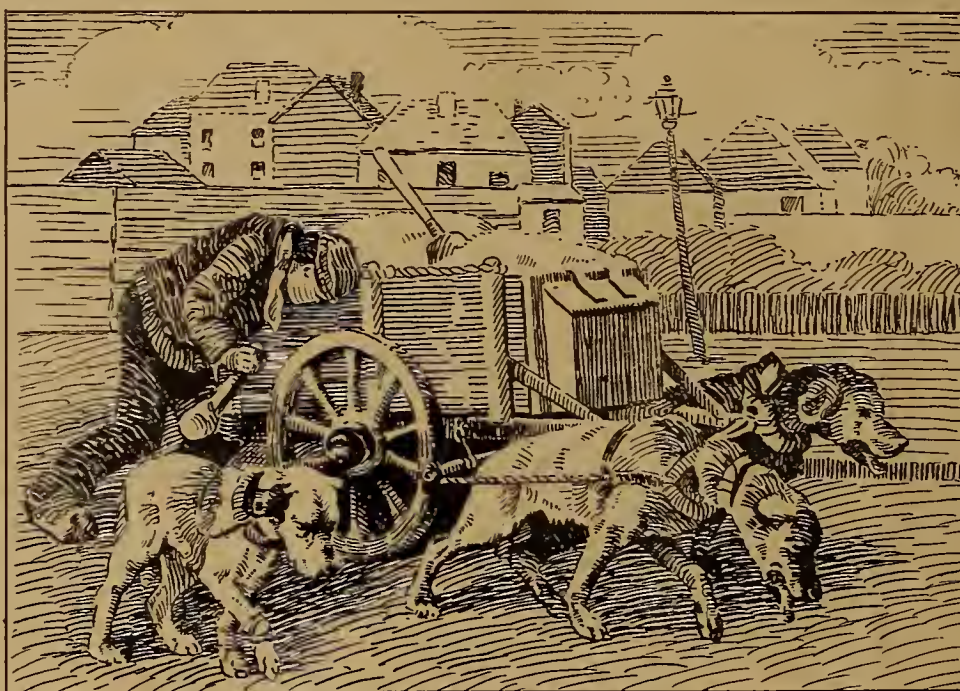
After the grain has been harvested, the land is harrowed thoroughly with a large harrow drawn across the field by a cable attached to two traction-engines which alternately pull the harrow back and forth. These

machines cover the ground very rapidly, and although the expense per acre is higher (\$3.40 for harrowing both ways, fifteen acres being covered in a day; for plowing, the charge is the same, but only eight acres are covered) it is found profitable to employ them on large farms where the land is level. The outfit consists of two engines, a plow and harrow, a portable house on wheels for the four men who run the machines, and a combination water-and-coal tender; these go about the country doing work wherever wanted.

Methods Used in Farming

After the land has been harrowed, all the trash is raked up with a tooth-harrow and burned, the ashes being carefully spread over the fields. The ground is then plowed and left in ridges for the winter, and then cross-plowed in the spring. Such cultivation keeps the land free and clear of all weeds, especially as there are no fences to harbor them and to interfere with the tillage. On such a farm, of course, the manure-heap has to be supplemented with commercial fertilizer, in spite of the fact that Mr. Bing buys a large number of stock sheep and steers in the autumn, and fattens them.

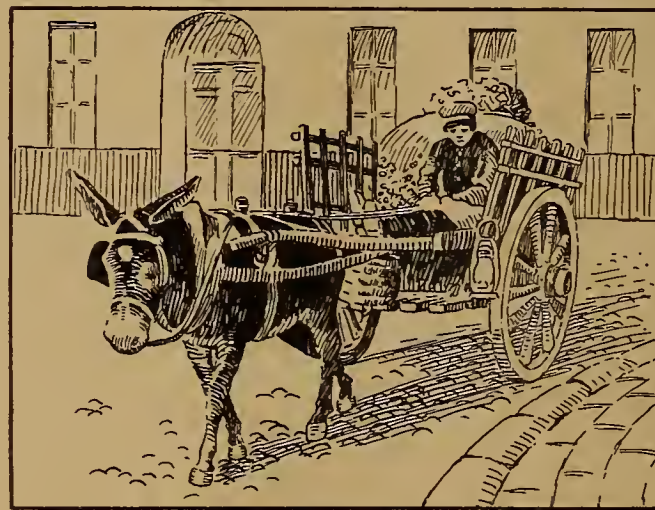
Another custom I saw impressed itself on me as an



Making the dogs do the work

excellent one and well worth copying, that is the keeping of large quantities of live stock on the farms. On no farm that I visited did I see less than one hundred sheep, six to ten cows, eight to fifteen steers or stock cows for fattening, five or six hogs, and on an average of four or five horses to one hundred and fifty acres.

The little economies practised by the English farmers were also noted. For example, the feeding of chopped straw and chaff to the horses and cattle, the hurdling of the sheep, so that every turnip is eaten before a fresh spot is moved to, and the ricking of the straw, clover and vetch and cutting it as needed, which saves



Going to market—in Belgium

barn space and doesn't in the least injure the material. The farmers also find it pays better to make butter and use the skim-milk for the stock.

In Canterbury, a city of 25,000 inhabitants, there is what is known as the cattle-market, occupying a space some 350 by 150 feet and surrounded by a wall on two sides and an iron fence on the other two. The surface of the enclosure is asphalt and slopes from either of the long sides toward the middle, so that it may be the more easily washed with a hose after every market-day. Hurdles, to make pens for sheep and swine, and iron rails, to which cattle may be fastened, are provided. Once a week the farmers send their lean stock there to be sold to other farmers who make a specialty of fattening stock, such as Mr. Bing, for instance, and the next week a day is reserved for fat stock. The reader can imagine what an interesting sight it is to see the droves of sheep, swine and cattle being driven into their proper places, the sheep and swine into little pens made by hurdles, and the cattle tied in rows to the rails. The sheep and swine are auctioned off by the penful, and the cattle singly. After the market is over,

men come with hose, and wash and scrub the whole yard until it is as clean as a house. It cannot help but occur to one what an excellent arrangement this would be for us in America; not only would it prove a godsend to our farmers, but would prove a profitable investment for the town in which the market is held.

Thus, having spent some six very profitable weeks in England, I went by the way of Dover and Ostend to Brussels, the largest city and also the capital of Belgium.

Ostend is the finest seaside resort in Belgium, and on pleasant days the beach, which extends for thirty miles, seems to be literally black with people bathing. In Belgium the railroad is owned by the state, and the service is excellent. The government does everything to encourage travel, and with this end in view issues five and fifteen day tickets, the former for \$4.10 second class (which corresponds to our regular cars), and the latter for \$8.20. These tickets entitle the holder to travel to any place and in every direction either by day or night. The one requirement being that the holder must have a photograph of himself attached to the ticket. This is certainly a far-sighted and excellent custom, enabling people to travel who would otherwise not think of leaving home.

While Belgium is a commercial nation about the size of Rhode Island and Maryland combined, and has a population per square mile three times that of France and double that of England, she devotes 10,067 square miles, out of a total area of 11,373 square miles, to agriculture. The western portion of the state, known as Flanders, is laid out in large farms devoted to dairying and the raising of cereals. Around Brussels the farms are smaller, some of them being only two or three acres. To the eastward the farms are larger again and, for the most part, are devoted to general farming.

The first farm I went to see was only four or five acres, and the work was done by the owner, his wife and a large dog, except the spring plowing and harrowing, which was done by a man with a team hired for the purpose. In Belgium dogs have to work for their living, and mighty hard at that. I have seen dogs cultivating the crops, drawing the vegetables to market, peddling milk, trundling heavy bakers' carts (all two-wheeled, by the way) and doing all manner of other work. These little farms are made to yield a living to their owners, and, some of the peasants, who have large families to help them in the fields, even manage to lay by over one hundred dollars a year.

The raising of poultry is a very profitable business around Brussels (the Brussels chickens being celebrated all over Europe). Unlike America, the farmers who raise poultry for market do not fatten them, but sell them through the village markets to fatteners for prices ranging from fifty to seventy cents each.

I visited one small farm where all the family and all the live stock were sheltered under one roof, and as the cows were liberally fed on turnips the reader can fancy the odor was far from fragrant! However, although the owner went about in overalls and wooden shoes and without socks, he had a nice little nest-egg tucked away and was as independent as you please.

Peculiar Farm Scenes

One of the curious sights in Belgium is to see the enormous loads drawn by one horse. I have seen a large draft-horse drawing a two-wheeled cart (the wheels were five and one-half feet in diameter) containing a cord of hard wood cut in four-foot lengths. The carts on the farms are all made for one horse and have only two wheels, but the bodies are very long, so that the balance is perfect, and when the load is very heavy another horse is put on, tandem. In Europe firewood seems to be a very great luxury which only the rich can afford, in spite of the fact that the forests are most carefully and conscientiously cared for and not a stick is allowed to go to waste.

In Belgium the canals form a very important means of communication, and although the boats are much smaller than ours (sails are used whenever the wind favors) they are extensively used by the farmers to take their produce to market. These Brussels markets are most instructive and interesting, and I found myself spending several free mornings wandering about in the great covered meat, butter, cheese and fish markets. The latter occupies an entire square in the city, the building is of brick covered with an arched glass roof. The stalls are arranged around the sides, while in the center are three circular places having low cement walls, looking for all the world like small circus rings. In the middle of these circles are fountains of water, where the fish are washed, while around the sides are stone tables for cleaning the fish. The women do the cleaning and wear large wooden shoes, called sabots.

What I noticed particularly in the markets was that everything offered for sale was presented in an attractive manner so that one was tempted to buy.

On the whole, perhaps, the thing that struck me most in this tight little kingdom was the general prosperity of the agricultural classes. To be sure, wages are low, being about fifteen to eighteen dollars per month for farm laborers, and twelve dollars for women, without board, but on the other hand they can get much more for their money than we in America. The men and women both work in the fields, starting in bright and early in the morning, too, and keeping it up until dark. In fact, their pride is in their work, and the thrift of their farms seems to be the only pleasure in life to them.

The Awakening of Kendrick Township

By Fred W. Beckman



HEY could hardly believe—the men and women and boys and girls of Kendrick Township, Greene County, Iowa.

They had been living independently of each other all the years, going their own ways, lonesomely and much as strangers, yet here they were late one afternoon last autumn sitting down together, 125 or more of them, at a community banquet in one of the pleasant groves of the township.

Like other country people in thousands of other rural communities in Iowa and elsewhere, they had developed no large social interest in each other, nor a strong community interest, yet here they were, getting close together, rubbing elbows, discovering each other, enjoying each other, and discussing the common affairs of the neighborhood.

The like had never happened before in this township, nor in any other township in the county, or in the state for that matter. No wonder it was hard to believe!

Something had happened in this community—something that was making country living more enjoyable; something that was making country life more satisfying; something that was awakening the neighborhood's social consciousness. That something was what the Country Life Commission found to be about the only institution that seemed to "grip the hearts and lives" of country neighborhoods, especially its boys and young men—the rural Y. M. C. A. Those letters have stood for magical results in other fields for a good many years past. They are coming to stand for interesting and unique results in the rural field, and worth-while results.

When the Young Men's Christian Association came into Kendrick Township, the community was as dull and uninteresting as the flat, unbroken level of its



In the field is the place to study corn

to the Bible study a definite program of educational work and physical diversion. The program included the study of seed-selection, crop-rotation, soil-fertilization, animal selection and breeding, and the like; usually one of the boys led the discussion, drawing upon some experiment or experience for material; occasionally a student or lecturer from the state agricultural college not far away was secured for a special address.

Good Physical Training

They discussed other topics also, and in the winter season they had literary programs. For physical training they did various things; played baseball in summer or took nature-study tramps; last winter they constructed a big mat and engaged in wrestling after Bibles and books had been put away. This physical training seems out of the way for a hard-working farm boy, but they found they needed it.

A year or two of this made altogether different boys of these lads and created a new spirit within them. "It woke us up," said one of them, "and made us realize that life out here in the country could be made worth living after all. It made us realize that we are capable of having a good time among ourselves in the country without going to city or town for it. It opened our eyes to the fact that there is more in farming than we had ever dreamed about, or our fathers, for that matter."

The awakening of the elders of these boys in Kendrick Township soon followed. The social spirit that had taken hold of the youngsters soon infected their parents. Fathers and mothers and older brothers cannot live long with enthusiastic boys without catching some of their enthusiasm.

The boys first interested the elders in one of their literary programs at the school—a grand public exhibition,

as the announcement put it. The little old schoolhouse was crowded to the limit that first night and the discussions of farm topics, the debates on public questions and the entertainment "stunts" were so successful that the community clamored for more. Now these exhibitions are a fixture.

This idea of getting together became so attractive to both young people and older people that they held a community picnic every month last summer and every week a community ball-game. Scores attended the picnic from the whole countryside. Men and women came to know each other in reality; they discovered that they had a common interest in many things—better farming, better roads, better markets, better schools—and they discovered that they stood a better chance for getting these things by working together to get them.

This new community spirit demanded a community banquet last fall and the boys' class promoted it. The banquet was a great success. More than 125 people sat down to the well-filled tables. When appetites had been satisfied, a banquet program was given, with a prominent Iowa editor as the principal speaker. It is not recorded that another community in Iowa ever came together in that way before, and Kendrick Township was wonderfully helped by the gathering.

Out of the boys' class study came a desire for farming knowledge among their fathers and older brothers. As the boys talked wisely about corn breeding and higher grade live stock and more scientific farming methods, and backed up their talk with practical demonstrations of its wisdom, their elders grew curious and then eager to know something about it all. The suggestion came that the elders and the youngsters get together for a day or two of practical study. The boys



After work—then the dinner

were more than willing, and one day last fall Kendrick Township held the first strictly rural short course ever held in the state. Choice corn and grains and fine live stock were brought together for study and judging, and lecturers from the state agricultural college came to give instruction. The short course was a pronounced success and will probably be repeated annually.

The schools of the community reflect its awakened interest in things. Agricultural instruction is finding its way into the course of study and better teachers are being insisted upon. There is a general demand that the schools be as good as possible.

Of course, the millennium has not come to Kendrick Township through the activity of the rural Y. M. C. A., but these things have happened there:

The lives and hearts of the boys of the community have been gripped as by nothing else before; they have found things around them and in themselves that are worth while; their ambitions have been aroused; their education has been extended; their interest in farming and country life has been increased; their desertion to the cities has been checked in some measure at least.

Through the boys the people of the whole community have been lifted pretty well out of their isolation and intense individuality and made to realize that they have many things in common and that there is happiness and profit in living and working together, with each other and for each other, and not separately and selfishly.

The standard of farming in the community has been improved. The schools have gotten out of their ruts, and school attendance has been much increased. The community has a Sunday-school that is influential and has an attendance such as it never had before. The men and women, as well as the boys, have an enlarged vision, and their mental horizon has been extended, and they are ambitious for even larger and better things for the community. These things will come to pass, too.

What has happened in this one community has been duplicated on others in Iowa and others in the United States. The Y. M. C. A. has four organized counties



Examining live stock

prairies. There was no church social center, for there was no church; there was no school social center, for the district school was a weak and uninteresting institution except on the rare occasions when a really competent teacher happened to be secured. The families of the community were isolated; they knew only a little about each other intimately and cared less, apparently. There was some visiting back and forth, of course, but never any social occasion when all the people were brought together at the same time. The young people were typically dissatisfied with their surroundings, and year after year more and more of them made their way to city and town.

The association came into Kendrick very quietly and unassumingly. That was because the young man in charge of the county field, Fred M. Hansen, now state secretary of the Y. M. C. A. county work in Iowa, had been a farm boy himself and understood rural suspicions and prejudices. He found a leader, a capable young man with the qualifications of leadership, and organized a little group of older farm boys around him for Bible study.

Training the Intellect

That was all there was to the beginning of this transformation.

But, strange to say, this Bible class very soon made a hit. It proved itself to be different than the young men and boys had imagined a Bible class to be. Its members found that the good book improved on acquaintance and that it was interesting. They found, too, that corn-growing and soil-conservation and cattle-breeding improved on acquaintance and became highly interesting as they discussed these things after the forty-five minutes of Bible study were over. Then they found that they themselves improved on acquaintance and became more interesting as they sat around a big dining-table after all study was over, talking and eating.

The class touched the intellectual and the social sides of the boys and young men as well as the religious, and it aroused them to the fact that it was possible to have a good time and be happy even in the country.

In the beginning the class met around in the farmhouses of the community, but it grew so fast that this became impossible in time. Last year and the year before it met every week in the year in the district schoolhouse, and rarely were there fewer than thirty boys and young men in attendance, usually more. The class gripped them so strongly that they kept up their attendance even through the hot summer months, when farm work is hard and farm folks get tired; they kept it up, too, through the busy husking seasons. The association made it worth their while. It added



Studying the ears of corn

in Iowa and forty-six in seventeen other states and provinces. The work has been uniformly successful. It has made its mistakes, of course, and has had its failures, but they have been very much in the minority.

This rural experiment of the Y. M. C. A. has been so successful that it faces a greater demand for its extension than it can meet. In Iowa there is hardly a county that has not asked to be organized and which is not ready with the money to promote the work. The association is willing and eager, but it lacks the men. It is not an easy field to work in, the rural field; it takes a man of ability, tact, diplomacy and a thorough understanding of rural life to succeed in it. Such men are hard to find, so this work waits upon men to promote it.

But communities need not wait on outside forces to do in a different way what the rural Y. M. C. A. is doing. They may of themselves accomplish the same results if they will find their own natural leaders and stand by them and follow them. In the last analysis, rural communities must help themselves if they are to be helped; their salvation from depopulation and degeneration lies within themselves. Experiments like that in Kendrick Township show the way.

Educate the Farm Boys

By E. D. Sanderson

IT SEEMS to me that Mr. George P. Williams, in his article on "The New Red Schoolhouse," is in error concerning the teaching of agriculture in the schools when he takes the position that we should not give a farm boy professional training in the common schools any more than we should attempt to train doctors and lawyers in the grammar grades. There are two fallacies: First: Farming is not a profession, although we may have professional "agriculturists"; as ordinarily practised, it is a trade. Second: The great bulk of our farm boys who will make our future farmers get no education beyond that of the common schools. The fundamentals of a general education certainly should not be neglected, but it is entirely possible to teach a boy in the seventh or eighth grade certain rudiments of agriculture which are unknown to many of our older farmers, and which would be worth a great deal to them if applied in their farm operations. Equally important is the interest aroused in farm life through instruction in nature study and agriculture by a sympathetic teacher. It is the general experience where practical agricultural work has been introduced in the schools that the interest aroused by it has induced many boys to continue their education who otherwise would have stopped. This justifies the teaching of agriculture in the schools.



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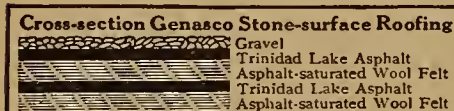


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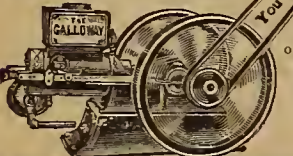
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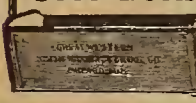
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The Market Outlook

Current American Apple and Live-Stock Values

The Apple Situation

THE largest apple crop in years has been produced this past season. Since orchardists are beginning to wonder how our future supply from the enormous acreage now being planted will affect apple prices, it is interesting to size up the market of this big crop year.

We hear of enormous quantities of fruit in Iowa, Illinois, Indiana, Michigan and Wisconsin rotting in the orchards.

Would it have been possible to have disposed of this fruit at a profit? If not, then, will there not be a universal calamity when the young trees now planted come into bearing?

Market quotations show that in spite of this enormous waste, western box apples are selling as high as \$2.50, with an average price of about \$1.75. The western fruit-grower knows that only his best fruit will ever sell at a profit on the eastern market. He is used to packing strictly to a named standard, and his returns this year surely show his wisdom.

Barreled apples of good quality are also getting very fair prices. New York Kings have sold at Nashville, Tennessee, for \$4.50 per barrel and generally A1 barreled stock has sold at a reasonable profit to the grower. Prices of Virginia, New England and New York apples have made that gradual awakening among eastern fruit-growers more apparent, while the very poor stock raised in the Middle West would indicate that we are still asleep. Orchardists in the Middle West are too apt to think that an extra bad apple added to the bulk will also increase their pocket-book. Their negative returns this year, however, may teach them the contrary. Just as soon as they start to grade their fruit they perhaps will realize that the great number of culls they get might be decreased. In this day and age, it is not hard for anybody to learn that proper management of orchard operations is sure to produce the desired fruit. But until the producer of cull stuff does wake up, the low-grade bulk seen on the market mostly in October and November will return little if any to its grower. Then this low-grade bulk will be clear-barreled stock or even perhaps fancy apples packed in boxes!

Everybody should welcome the time when apples will be produced in big quantities at a minimum cost, to enable them to reach the poorest family. To do this and to allow the grower a respectable living is an ideal which I hope and think will be realized before many years. Improved economical methods of growing, harvesting, transporting, storing and marketing are bound to come when the future great production of fruit will force it by the resulting keen competition.

Even now, however, Dutchess apples can and are being produced profitably at twenty-five cents a bushel in northern Michigan. If these and all other summer and fall varieties now in bearing could be grown, harvested, stored and marketed properly, apples for all and money for the grower would be realized.

Just what will happen to us growers, when the young trees now planted come in bearing, is problematical. No doubt many orchardists will fail. Because of it their neglected orchards will stop bearing. In a few years the supply will strike an even balance with the demand, and those surviving will again get their due. The best fruit will always bring the best prices; the poor fruit may bring nothing. The man who can produce this "best fruit" at least cost will be a "survivor." A. J. ROGERS, JR., Michigan.

Sheep Values

NOVEMBER, always hitherto looked forward to for a brightening up of the sheep-market, passed over this year without any material improvement. When about the middle of the month a crowd of western stuff was forced on the market in Chicago, fair to good ewes were sold for killing at from \$2 to \$2.75; the best at \$3.25; wethers around \$3.75; the very best lambs to packers at \$6, and good feeders from \$4 to \$4.50. About the twentieth prices improved a little, but only because fewer sheep came in. It seems that low prices have induced packers to buy largely of stuff which in former years would have gone to feeders, but many of the latter have had a bad scare and sales to them have fallen off greatly at all the western markets. Iowa alone has bought feeders freely, and it is said that many feeders there are about to reform their methods and mean to compete with highly finished fat lambs for top prices. The packers' storage-rooms are said to be overloaded with mutton.

From Buffalo westward, no sooner did a slackening of the supply of half-finished stuff from the West begin to encourage a more hopeful tone in prices than a flood of native sheep and lambs poured in, and the very lowest point for years was reached; and so it goes, and will go until all this stuff

which was bought high, but for which no adequate provision of forage crops, and no material for properly balanced rations could, as a rule, be obtained except at too high prices, has been gotten rid of.

The ways of commerce are often inscrutable, and especially so in this our—at present—trust-ridden country. I have just received an English paper which gives an account of a few recent arrivals there of frozen meat. One of these commercial mysteries I refer to is how it happens that we make no adequate efforts to regain our supremacy in that market, or at least to avail ourselves of our superior facilities of supplying it. We might not command the top of the market, but much of the stuff that has come lately to our markets and been sold at from three to five cents would find ready sales among those who cater there for what they call the lower middle classes who are much given to mutton stews, Irish and otherwise.

Important Imports

To give an idea of the extent of that market for frozen mutton I will quote examples of the imports of a few days. In one ship alone, from New Zealand, came 38,973 carcasses which sold rapidly at from seven to nine and one-half cents per pound; from Australia, in four ships, 69,310 sold at from seven to eleven cents. Of lambs an aggregate of 48,496 came from New Zealand; 12,245 from Australia, and from South America 35,000, prices ranging from nine to eleven cents. Secondary qualities were in great demand at nearly equal prices. In view of the fact that in the middle of November a train of lambs was received in Chicago, fat and in perfect condition, from Oroville, Washington, 2,200 miles, the trip having taken nine days, the lambs averaging seventy-five pounds and selling at \$6—about the top of the market—though \$1.11 had to be paid for freight per hundredweight, would seem to imply that exports of sheep to Great Britain, where freights would be far less, ought to pay. I tell this story because I think that in it we should be able to find a way to avoid the immense sacrifice of fairly good sheep and lambs caused by the late glut of our markets. The really finished animals can always find the best of markets at home; but secondary sorts would, I think, well compete with New Zealand, Australia and South America when offered frozen in the British markets. When through with the government our millionaire packers may try to regain their old control of the European markets.

I still think that anything that is really fit might best be sent to market, but that sheep and yearlings which a month in the yards would finish should be kept and fed by themselves specially for the holiday markets, and, if necessary, even up to the end of January. If I am wrong in expecting a big change in the markets by then, I shall have been prophesying "vain things," but, thank goodness, not alone, for all the experts are now singing in chorus with me.

Unusual Conditions Have Existed

In reviewing the sheep-markets of the past eight months, it must be kept in mind that unusual conditions have existed; the drought brought on shortness of food, and the country bankers, shortness of credit, thus inducing a panic, which, in its turn, caused hundreds of feeders to rush their holdings to market irrespective of fitness or prices. This again reacted on fat stock and tempted buyers to force down their prices and to take, instead, stuff for killing that they would not have looked at under ordinary circumstances.

But after all what has this great break in the sheep-markets of 1911 amounted to? Men who bought lambs and sheep recklessly and regardless of prices were met by the difficulties above mentioned and in many cases were absolutely compelled to get rid of them the best way they could, naturally enough disturbing the market and incurring heavy personal losses.

In FARM AND FIRESIDE of October 10 and 25, and November 25, 1910, the cost of breeding and feeding what are, very foolishly, called hothouse lambs, as well as that of lambs intended to be marketed when from nine to twelve months old, was gone into. All the details of cost and of probable returns had been carefully calculated from the average of the last ten years and from personal experience, and it was shown that a properly bred, fed and cared for lamb weighing from eighty to one hundred pounds could be fitted for market at almost any part of that period for \$2.50 to \$2.75 and be sold for from \$6 to \$7.80 per one hundred pounds. There has been no period in this alleged panic when that could not, or has not, been done; but we have got into the habit, mostly led into it by the range feeders, of crying "wolf, wolf," and have ceased to look at the matter reasonably.

Although I fear my space is exhausted, I want much to give the following facts, which

I think go far to confirm this view of the year's market. Buffalo, New York, though not competing with our largest western stock-yards in regard to volume of business, generally equals, and sometimes beats, even Chicago in the prices paid for prime sheep, and especially for lambs. Its very reliable *Live Stock Record* published on November 20th the average prices paid for top lambs for twenty-five years. On that day, this year, one lot of seventy-eight seventy-six-pound lambs made \$5.35, and twenty-nine other lots, averaging about seventy-five pounds, went for \$5.25. These were all classed as "good to choice." Of the twenty-four preceding years the prices on the same day in thirteen years exceeded this: that in 1905 being \$7.35; 1906, \$7.40; 1909, \$7.30. In the remaining eleven years the average prices were lower than \$5.25, the lowest being, in 1894, \$3.75. The *Record* remarks: "The quality to-day—November 20, 1911—was about the poorest of the season." During the ten months just past 383,200 more sheep and lambs were received in Buffalo than during the same period of last year.

If, then, a fat lamb can be produced as I have tried to prove—for \$2.75, weighing eighty pounds—he will make, at \$5.25 per one hundred pounds, \$4.21, and his manuring value during the nine or ten months of his high living will certainly pay the expenses of his marketing. If this is true, and I fully believe it to be well within the mark, I cannot even see a "kick" coming, let alone a panic such as has lately prevailed in the woolly world.

The wool-market is showing more strength, though individual sales still remain unusually small; but the woolen mills are going extra time, and buying must soon be heavier. JOHN PICKERING ROSS, Illinois.

December Hog-Market

THERE is similarity between the hog-market this season and the one of three years ago. There was at that time a desire, as there is now, to sell the hogs at a light weight because of the high price of corn. Consequently, there was a shortage of heavy weights, a condition similar to the present one. The average price for November in 1908 was seventy cents lower than the November just closed. The average price, for the December following was thirty cents lower, and then the prices climbed until the midsummer following. There is a general belief that prices will follow a similar course this year.

There has been seasonable heavier marketing during November, but the packers purchased freely even on heavy runs, and there was not the decline in price that there would have been earlier in the fall under like conditions. One reason for this is the low average weight in every market. Pork-barrels are not filled as fast as numerical receipts would indicate when every hog is twenty-five pounds under average weight for this season. Neither do the lard-tierces fill rapidly when there is a decided scarcity of fat swine.

Export demand continues to increase. Bacon exports so far this year have been about \$19,000,000, while for the corresponding time last year they amounted to \$13,000,000. Ham exports are \$19,000,000, as against \$14,000,000 a year ago, and lard is \$43,000,000 as against \$36,000,000.

With the coming of winter there has been a logical improvement in quality. The light stuff is disappearing and is being replaced by heavier hogs. The bulk of the current supply is of the mixed weights, with a scarcity of prime-quality heavy hogs. Eastern markets are flooded with light hogs, cutting out almost all of the order buying at western markets, consequently local packing is the sole outlet, but that demand is equal to the supply.

When breaks in the prices occur, the country is inclined to hold back shipments until this break has disappeared, thus doing much to keep the market steady.

Packers contend that there is a lack of fresh-meat demand, trying to prove that lower prices are necessary, but their actions would lead to an opposite conclusion. A car of pork-loins was shipped from St. Joe to New York recently. When it got into Ohio, it was rebilled to Chicago and hauled back that three hundred miles to supply the fresh-meat demand there.

When declines occur, they are short-lived, and heavy weights advance at every opportunity. The general situation is constantly getting onto a healthier basis and developing into the regular December market.

L. K. BROWN, South Dakota.

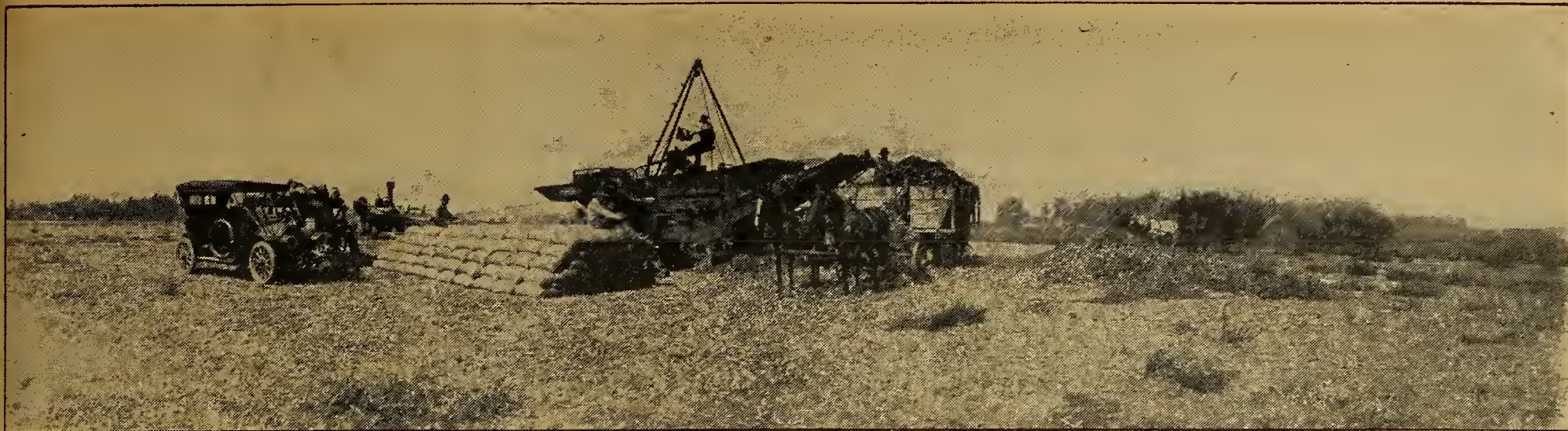
To realize how much clatter the hoofs of a horse make on soft sand, you must hear the noise reproduced in a moving-picture show.

The papers that report the markets of live stock would save money by stereotyping: "Prime fat lambs in good demand at steady prices; other sorts dull or not wanted at all."

Headwork Winners

November 11, 1911

Cement Feeding-Floor . . . Grover Miller
To Recut Old Files . . . E. R. Merrow
The Third Seat . . . W. W. More



A thrashing scene in the California lima-bean district

Coöperators Make Money

By Charles Alma Byers



NE would scarcely imagine that the entire world could annually consume as much as 105,000,000 pounds of lima beans. It is evident, however, that the United States does alone—and more, too. This figure represents the approximate crop of southern California only, for the season just closed. It means nearly 1,125,000 bags, of eighty-five pounds each, worth in the neighborhood of \$5,000,000, the largest and most valuable crop of lima beans yet harvested in the state.

It is southern California that produces the bulk of all the lima beans consumed, as well as grown, in the United States, and Ventura County, of which Oxnard is a principal city, is the center of the industry. It is estimated that nearly two thirds of the lima beans grown in the United States are harvested on a strip of land, surrounding Oxnard, that is twelve miles wide and thirty miles long.

California Lima Beans

The total acreage from which the past summer's crop in southern California was harvested amounted to about 65,000, and the average yield was between seventeen and eighteen bags per acre. The beans are being sold at an average price of about \$4.04 per bag, or \$4.75 per hundred pounds, which is considered satisfactory, meaning a gross income, exclusive of the by-products, to the growers of nearly seventy-three dollars per acre.

To facilitate the handling of the southern California crops and to prevent a too pronounced fluctuation in prices, two serious problems with which the growers had to hitherto contend at a disadvantage, in May, 1909, the Lima-Bean Growers' Association was formed. The prices received prior to the forming of this association ranged, with frequent rises and falls, from \$3 to \$5 per hundred pounds, whereas since then, despite the rapid

increase in the acreage, the crops have been disposed of at prices close around \$4 per hundred pounds—and recently a little better. The first crop marketed under the management of the organization, which was at the close of the panic years, brought an average of about \$3.85 per hundred pounds, and the second crop, in 1910, an average of \$4.60 per hundred. The majority of the growers are members of the association, but, as in nearly every other similar case, there are some who have chosen to be "independents." The prices received by the latter have invariably averaged about five per cent. under those received by association members. The

ing the very best prices obtainable. All beans shipped by it have to be recleaned after thrashing, and at all of the warehouses there are machines especially for this purpose. These cleaners are of different sizes, having daily capacities of from one thousand to three thousand bags. It is claimed that the cleaners owned by the association members can handle fifteen thousand bags per day.

The Value of the Lima Bean

Until a year ago southern California bean-growers were practically without competition in the United States market. During the marketing season of the 1910 crop the remarkable price of \$6.50 per hundred pounds, or \$5.52 per bag, was reached. This was too much of an incentive for the foreign growers of a similar bean to overlook, and as a result a little competition has developed. From Madagascar, the French island possession off of the coast of southeastern Africa; Peru of South America, and Manchuria came beans similar to California's limas. A duty of seventy-five cents per hundred pounds exists against these importations. The Madagascar beans, crop of 1911, are being offered for November and December shipment at prices that are equal to \$4.75 per hundred pounds f. o. b. Pacific Coast.

Unlike that of most crops, the lima bean is a plant that improves the soil from year to year for the reproduction of its kind in increasing abundance by the adding of nitrogen to the soil. Land when first devoted to the culture of the crop will yield from eight to sixteen bags per acre, the average production being about ten or eleven. With succeeding seasons the productiveness of the same acres will

increase so as to frequently double the average. In Ventura County, where most of the acreage is comparatively old, the average yield for 1910 was twenty-two bags per acre, and one field of twenty acres produced fifty-six bags, equivalent to about 4,760 pounds. The increase acreage planted to beans in southern California in 1911 over 1910 was about ten per cent., or nearly 6,000 acres. [CONCLUDED ON PAGE 13]



Getting ready for the thrasher

association possesses representatives in nearly every important city in the United States, and is, therefore, always assured a reliable market for its product. By such coöperation it is also able to ship in car-load lots, and in this way considerable is saved in freight charges. The association has its headquarters at Oxnard.

Another influence of the association has been to better the quality of the product shipped, with a view to secur-

From Cobbling to Farming

By A. E. Winship

WHEN one man on two and a half acres in Maine clears from \$1,200 to \$1,500 a year, while the ordinary Maine farmer scrubs along on from one hundred to three hundred acres, it is interesting to know how he does it.

Mr. Alvin A. Eastman of Dexter, Maine, was a cobbler until he was fifty years of age (forty-eight; to be exact, for the sake of the purist), by which time he was weary of looking after the soles of men. As he puts it, "I had pegged and pegged and pegged until I was pegged out." He announced that he was going to farming. Wife and sons protested. "Stick to your last," said the wife. "Remember that you have a family," said the sons. "Remember that I am pegged out," said Mr. Eastman in 1896. "Harness old Dobbin, boys," said he, and he loaded into his wagon bench and tools, lasts, leather and all, and piled them up in the loft of the barn in the early spring. He had been reading agricultural papers for several years, and had learned several things: Don't have much land. Raise a lot of different crops, so that two can fail without

causing anxiety. Raise the best of everything you raise. Have crops ripe when the price is the highest. Sell to people who care nothing for the price if they get the best when others cannot get any. For fifteen years he has cleared above all expenses from \$1,200 to \$1,500 a year.

He specializes in red raspberries, gooseberries and currants. These must be in the shade, hence he has an orchard of rare varieties of apples. This year he sold two hundred barrels of A No. 1 apples at three dollars a barrel, and the rest went to New York City as cider apples at forty cents a barrel on the ground and trees. Some years he gets five dollars a barrel for apples.

He has an eighth of an acre in rare strawberry-plants—he raises no strawberries, but sells the plants. This year he sold 100,000 plants at seventy-five cents a hundred by mail. Postage is fourteen cents. He sells by the thousand for four dollars.

In 1907 he sent one bushel of red raspberries to Boston, and got two barrels of flour in return. He usually markets forty bushels of red raspberries at about ten dollars a bushel.

He has five varieties of rare plums. These are sold at the leading summer hotels in Maine. He has had as high as seventy-five bushels of plums. He has had two hundred bushels of gooseberries, the price being often six dollars a bushel. He has had as many as two hundred bushels of currants, the maximum price being five dollars.

He is experimenting on cultivating blueberries. He has a small patch of rhubarb because it is reliable. This year he sold a ton, much of it being ready for market when he received five cents and more a pound.

At the best it costs something to run even a two-and-a-half-acre farm. The dressing of the farm is ingenious. He uses straw mostly. It is very cheap there. He packs it all about the trees, shrubs and vines. This keeps them safe from the fierce cold. It rots during the win-

ter, and is spaded in in the spring, providing the much-needed potash. By its use he also kills the weeds. This is a stroke of genius. The earth is so warm in early spring under the heavy carpet of straw that all weed germs sprout and creep up through the straw. As soon as they show themselves, Mr. Eastman puts a long fork under the straw and lifts it clear of the weeds and drops it back upon them, and their career for the year is ended, so that he has practically a weedless garden.

Picking the berries is quite a trick. At times he has as many as seventy pickers in the field at once. By a simple device the accounts are accurately kept without any bookkeeping, settlement being made with each picker at the end of the day.

Mr. Eastman at sixty-three says he is younger than he was at forty-eight.

I have seen farms and gardens in every state in the Union, but I have never seen one that is more interesting than this farm of Alvin A. Eastman, the cobbler.



The cobbling shop



Mr. Eastman's present home

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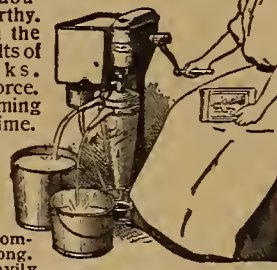
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Live Stock and Dairy

Which are the Best Cows?

WHICH is the best breed of cows has been asked a good many times during the past several months. We cannot say that any one breed is better than another. It depends upon the man and upon the conditions. A breed that would do well in the hands of one farmer might not do anything at all in the hands of another. One man can take a herd of Jersey cattle and make them profitable in the dairy. Another man, disliking Jerseys but liking Holsteins, might make more or less of a failure with the former and a grand success with the latter. Thus the right breed depends largely upon the man.

Of course, there are certain characteristics about each breed that, along with market and farm conditions, should help us to decide. The Jersey is the smallest of our dairy breeds. The quantity of milk she gives is not so great as with some of the others, but the test averages more. The Holstein is the largest of our dairy breeds. She gives the most milk, but it tests the least. The Guernsey is midway between the Jersey and Holstein—in size, in test and quantity of milk. Guernsey milk is very yellow—much more so than any of the other breeds. The Ayrshire, in size and test, is similar to the Guernseys.

Importance of Individuals

Many people form a liking for a certain breed and thereafter think that any cow of that breed is a good one. Unscrupulous dealers have frequently taken advantage of this and sold many scrub grade cattle with just enough pure blood in them to show the proper color. We must remember that there are scrub Holsteins and scrub Jerseys and scrub Guernseys and scrub Ayrshires, as well as scrubs in our common stock. We must see that the stock comes up to a standard.

A young lady might be acquainted with a number of fine Germans. Should she conclude that all Germans were good and great people and blindly pick one out for a husband, she might get the worst old drunken reprobate in the state.

It's the same with breeds of cattle as with races of men. We must insist that they come up to a standard.

The best kind of cow for any farmer or for any section is the one that makes the most money. In a creamery section it is the one that makes the most butter-fat in a year for the amount and value of the feed she eats. In the creamery section it's the butter-fat we get paid for. The important thing is not whether our cows are Short-horns, Guernseys or Holsteins. It is not so much the breed. It's the cow. The big thing with her is not her test or her yield of milk when fresh—it's the amount of butter-fat she gives during the year.

Some are satisfied with a cow that yields about one hundred and thirty pounds of butter-fat a year, simply because she will produce a good-looking beef-calf.

In the dairy herd it pays to milk a dairy cow—not a beef-animal. We must reckon the value of the calf when it is born and not after we have fed him for a year or two. Again, the fact that a cow will bring \$30 or \$40 when her usefulness as a producer of milk is past is not so important. Butter-fat is so high in price that cows in a creamery section produce all the way from \$25 to \$140 worth of it every year. Obviously it doesn't pay to keep the cow that will give, say, \$30 worth of butter-fat in a year just because she will sell for \$25 or \$30 as beef when she is old. We would better look for and keep the one that will give about \$100 worth of butter-fat in a year. There are hundreds of them that can do it easily.

How Much Should a Cow Test

in order to be a good cow? Again, I repeat the test is not so important unless we take into consideration the amount of milk she gives, also. A few days ago we heard one farmer advise another that it was better to keep a cow which gave only a half pailful of milk testing five per cent. than to keep a cow that gave a pailful that only tested four per cent. Assuming the cows equal in other respects, the farmer was wrong. Suppose the cow giving the half pailful of milk produced in one year 3,000 pounds which, at five per cent., means 150 pounds butter-fat. At 30 cents per pound this means \$45. Now the other cow, giving the pailful of milk daily, would yield 6,000 pounds. Four per cent. means 240 pounds butter-fat. This, at 30 cents per pound, would sell for \$70.

If the cost of the feed in each case was \$35, one cow would be equivalent to a bank account of three and one-half times as much as the other. Thus it is not enough that we know how much the test of the milk is. We must also know how much milk the cow gives.

G. W. PATTERSON.

Bolt Down the Hand Separator

THE practice of operating high-speed centrifugal separators which are not securely fastened to a solid base is both dangerous to the operator and destructive to the machine. No piece of machinery on the farm has so high a speed as the hand separators, the majority of which are operated at over five thousand revolutions per minute, yet thousands of separators have either insecure and inadequate foundations or none at all except an ordinary floor. Such separators seldom run smoothly or give satisfaction.

Aside from the unnecessary wear and strain they undergo, they are invariably poor skimmers. The vibration and rattling of the bowl interferes with close separation, and the tests of different lots of cream will not be uniform. To remedy this trouble, mount the separator on a firm foundation of heavy plank, and fasten it down securely with bolts or large wood screws. Where the boards of the floor are less than one and one-half inches thick, the separator may first be bolted to short two-by-sixes and these in turn fastened to the floor, a spirit level being used to level the bowl. The increased skimming capacity of the separator, combined with the greater ease of operating the machine, at once suggest and recommend themselves to thoughtful dairymen.

D. S. BURCH.

Brain Ailment of Calf

I AM asked what can be done for an eight-week-old heifer calf which has the following peculiarities: She never runs or exercises, but will stand and shake her head sideways for a considerable period of time. She often falls over sideways. She can kick with her hind feet, but not with her fore legs, which she cannot control very well. The calf eats hay, oats and fodder and is apparently in good physical health.

The cause of the calf's queer actions is doubtless due to some abnormal and probably incurable condition existing in or near the brain. Such an animal should be fed well and sold as soon as fat.

C. D. SMEAD.

Can you grow two crops next year where you have grown but one crop this year? Or have you thought about it? FARM AND FIRESIDE will tell the experiences of several farmers on this subject.

Treatment for Caked Udder

AN ILLINOIS reader asks how to treat cows suffering thus: A small red sore starts at the end of the teat and gradually grows larger until it entirely surrounds the hole through which the milk comes out.

The cause of the sores is infection from dirty floors. Often, too, the cow gets an injury of the teat, and then this becomes infected. It may be a scratch at first or a bruise or cut from the teat being stepped upon by another cow in the stall. In some cases I have found the cause to be infection from cows wading through mud or filth in yard on way to barn. All such causes should, so far as possible, be removed. Then, in every case, clean up, disinfect and white-wash the stable. Keep the floors clean and well bedded.

When a sore starts on end of teat, soak the teat twice daily for a few minutes in a hot, saturated solution of boric acid, and then smear with balsam of Peru. If the sore is tardy in healing, paint it with tincture of iodine, and then continue the other treatment. Often men use a milking-tube to draw off the milk, and, not taking care to sterilize the tube each time before using, it carries infective matters into the udder, and that causes the caked condition and loss of the quarter. A milking-tube has to be carefully sterilized by cleansing, boiling and then baking dry in oven.

When the simple treatment fails to stop the spread of the sore and the teat becomes obstructed and hard to milk, the best treatment is to have a qualified veterinarian cut out the sore and growth by rimming with a small "nicking" knife. Then the cow is left unmilked, so far as that teat is concerned, and the milk, dripping and running away, keeps the wound open until healing is accomplished.

Twice daily the teat has to be soaked in the saturated solution of boric acid used hot, and then should be smeared with balsam of Peru.

A. S. ALEXANDER.

Don't grieve when you are cheated in a horse trade: rejoice that there exists a greater rascal than yourself.

Stifle-Joint Lameness

I AM asked the manner of treatment for a four-year-old mare which has the following peculiarity in her left hind leg: All the joints in the limb are stiff, except the lower joint next the hoof, and she can move the limb only by dragging it on the ground. Sometimes this condition lasts only a short while, and sometimes it will last for half a day. It seems locked, but whenever she gets it to move it is all right. She becomes affected when tied in a stable and when in a shed not tied. She does not take it when turned out. It seems to hurt her severely when it is stiff.

The trouble is, no doubt, stifle-joint lameness, caused by the dislocation of the stifle joint. In horses in which it has occurred a few times it is more likely to occur again than in those who have never been subject to it. Still, as colts grow older, and all their bones, sinews and muscles grow stronger, they often outgrow it to a very great extent. Good, nourishing food and regular, but not excessive, work are valuable aids.

The joint can be replaced by one man pulling the leg forward while another pushes the dislocated bone back into place, but if your mare gets it back herself, it is better "to let well enough alone." I should advise bathing such a joint every day, however, with the following liniment:

Tincture of opium.....3 ounces
Tincture of aconite root.....3 ounces
Spirits of camphor.....3 ounces
Iodide of potash (in fine powder)....4 drams

Mix well, and rub in vigorously with the hand once or twice a day, all over the affected joint, for a week after the accident occurs. Remember that the mixture is a strong poison, so keep it out of the way, and wash hands after using it. DAVID BUFFUM.

Have the barn and feeding-pens so located that the drainage from them will be a help to growing crops instead of a nuisance to the home.

The farmer who makes a practice of holding his hogs for an advance in price almost invariably finds himself wanting to let go of a hot iron a few weeks later, when swine prices drop to bed-rock.

Money in Tanning

TANNING hides and furs on the farm can be made a lucrative work. I personally knew a man, a bachelor, who lived on a ranch, as we say here in Colorado. This man tended to his farm-work, and during the winter months he tanned the furs of coyotes, muskrats, bears and lions and other furs which his neighbors brought him, and he even received orders from inhabitants of Denver. He tanned the furs, and then prepared them for fur rugs or fur robes, which ever his customers desired. This same man mounted animals and birds and cow and steer horns. All this paid him well.

Another young man of my acquaintance has learned the tanning of hides and the preparation of leather through a course of instructions by mail. He tans cow-hides or calf-hides, making them into leather for his neighbors, and receives a handsome price for his work. While other young men of the neighborhood loaf around during the short winter days and complain of being lonesome and "nothing doing," he puts in his spare time making leather and tanning furs for those who patronize him. During the summer months he is very busy at farm-work.

META R. BACHMANN.

How to Tan Sheep-Skins

IN ORDER to tan and dye sheep-skins successfully, wash the pelts in warm water, and remove all fleshy matter from the inner surface; then clean the wool with soft soap, and rinse out the soap thoroughly. Apply to the flesh side the following mixture for each pelt: common salt and ground alum, one-quarter pound, each, and half an ounce of borax. Dissolve the whole in one quart of hot water. When cool enough to bear the hand, add rye-meal to make a thick paste, and spread the mixture on the flesh side of the pelt. Fold the pelt lengthwise, and let it remain two weeks in an airy place. Then remove the paste from the surface. Wash and dry. Scrape the flesh side with a knife, and work the pelt until it becomes thoroughly soft.

J. H. MCCORMICK.

Double the Hog Money

FOR some years I, as a farmer's wife, and taking an active interest in things pertaining to farm life, have thought it a loss to sell pork by the carcass for eight and one-half cents or nine cents per pound, when by some extra work one could more than double the money, and I now have succeeded in convincing my husband that the former way is a loss which we, and many other farmers in our Canadian province, incur by not looking at the matter from a profit-and-loss standpoint.

I bought a hog weighing four hundred and forty-one pounds at nine and one-half cents per pound, costing me forty-one dollars and ninety cents. I picked the hams, and at

Easter sold them to parties in St. John, delivered at their expense, for eighteen cents per pound. They wrote me they were the best they ever had, and one of them has this year engaged four for himself and friends. All the rest of the meat that was suitable my husband and son ground up into sausage, which I seasoned and stuffed into cotton rolls of five pounds each.

I buy the cheap factory cotton which costs six cents per yard. I cut it two and one-half fingers on selvage, and tear it across the width of cotton, put the edges together, and turn over a little to make it strong, and stitch on the machine. After cutting the bag in the middle, I tie one end, and stuff as tightly as possible, unbinding just enough cotton to tie at that end. I take a piece of strong copper wire twisted round the size of the bag, and pin the bag over it while stuffing. This keeps the bag open and is a great help. After the rolls are all full, I melt lard and rub each roll, which excludes air and helps to keep them when cold and hard.

I have orders for more than I can make at twenty cents per pound. I do not go by judgment in seasoning, because some years one's judgment might not be the same, while, by measurement and weighing, the meat is always uniform. I send a good many pounds to St. John, and set my own price.

After finishing the sausages, I took all the bones and feet, and made head-cheese, which I sold to a grocer at sixteen cents per pound. This year I expect to get eighteen cents. The lard sold at eighteen cents per pound.



Obliging—certainly

We cleared twenty dollars on the hog, and it was not a week's steady work. The men ground the meat in the evenings, so it did not interfere with their work.

This year we will have plenty of pork of our own, even though my orders are larger, so I wish to say to the women readers of FARM AND FIRESIDE, "Go thou and do likewise." If you make a satisfactory article, you can practically put your own value on it. In fact, American women have the better chance, if what I have heard is true. Wealthy Americans do not care what they pay if the goods suit them, but wealthy Canadians think more of the price.

J. M. B.

What is Certified Milk?

Some Facts for Earnest Farmers

FIRST, what do the words certified milk mean; that is, what is certified milk as a matter of definition?

Certified milk is milk with a certificate, and usage says that the certificate must come from a medical milk commission. Certified milk may be milk of any quality, provided it has the certificate of a medical milk commission.

So much for the significance of the expression. Now what is certified milk as to quality? The presumption is that certified milk is high-grade milk, for it is extremely improbable that any medical milk commission would certify to anything but a first-class product. As a matter of fact, certified milk is high-grade milk, but high-grade milk is not always certified milk, for the producer of the very highest quality of milk may for good reasons of his own not care to have it certified, or he may be doing business where there is no medical milk commission and hence he cannot get his product certified.

High-Grade Milk

The two terms, high-grade milk and certified milk, are not synonymous. And yet we frequently read of "high-grade or certified milk." A man may produce a superior article and have it frequently examined by chemist and bacteriologist to see that it maintains the quality he desires. He may sell it under guarantee of a high specified amount of milk solids and a low minimum of bacteria; he may publish statements of chemist and bacteriologist, stating the result of their investigations, attesting the high quality of his product. But he can't call it certified milk, because certified milk is milk that has been certified by a medical association, and his has not.

If the producer of milk of any kind advertises or claims that it is certified when it does not have the certificate of a medical milk commission, he is guilty of deception, though, if he is producing a high-grade article, his deceit may injure no one.

What is high-grade milk which the average medical milk commission would be willing to certify?

It is not necessarily milk high in food material. The medical milk commissions agree that milk of average composition is satisfactory for most infants and invalids.

There is about twelve and one half to thirteen per cent. of food-material in milk which could be certified, though sometimes a dealer in a high-grade milk puts out a product that contains as high as fourteen to fifteen per cent. of food.

The Milk is Clean

The distinctive feature of high-grade milk, and of certified milk, is high quality from the sanitary standpoint. First, it must come from healthy cows, which means that all cows producing it must be tuberculin tested, for only in that way are we sure of having healthy cows. Second, none but healthy persons must have anything to do with the milk or the utensils with which it comes in contact. Third, it must be produced and handled under rather exceptionally clean conditions, promptly cooled and kept cold. In this way is the number of bacteria kept low. Milk of this high quality usually has under 94,000 bacteria per cubic inch.

How is certified milk produced? The same as any high-grade milk is produced. Quality of milk is a matter of degree. Milk may be so dirty and contaminated as to be unfit as an article of human food. Such milk we will represent for convenience's sake by the figure 30. Milk of the highest quality, good enough to bear the certificate of a medical milk commission, we may represent by the figure 95. Between these extremes are milks of every degree of goodness—or badness—that can be expressed by all the whole numbers and fractions between 30 and 95. The different qualities may vary from each other by almost imperceptible gradations. There is no clearly defined, hard and fast line between first-class milk and poor milk. The method of production is wholly a matter of degree.

Suppose a dairyman whose milk is so poor as to be represented by the figure 30 decides to reform and do better. He gradually improves his methods and his buildings. He cleans his cows, his stables and his milk-room; he gets some small-top milk-pails, which are scalded every time they are used, as are the cans, strainers, etc. Milk is promptly removed from the barn as each cow is milked, cooled at once to fifty degrees Fahrenheit, and put in cold storage.

As this work goes on, the quality of the milk from the dairy gradually rises like the mercury in the thermometer: 35, 40, 45, 50, 60, 70. Here the milk will probably be good enough for common market milk and will meet the approval of any reasonable health officer for such use.

People Want the Very Best

But suppose the dairyman's progressive desires and work do not stop here. He continues his efforts for better milk. His cows are tuberculin tested, clean milking-suits are introduced, cows are daily groomed, he is more and more particular. The quality of his product still rises: 75, 80, 85, 90. Here is milk good enough to meet the requirements of any medical milk commission and to secure its certificate if the dairyman wishes one.

Stating the case in another way, there is no distinct product known as high-grade milk in the sense that there is any specific rule, recipe or formula which it is necessary to follow in order to get this refined product.

High-grade milk, whether certified or not, is milk in the production and handling of which the precautions are taken which every careful dairyman uses, only they are carried further and there is a higher degree of painstaking than is usual with the average dairyman.

Cement floors, pipe stanchion supports, smooth walls and ceilings are a convenience and an economy of labor if one is producing high-grade milk, but they are not essential. It is possible to keep clean even if one is handicapped by adverse conditions. Cleanliness—modern bacteriological cleanliness—is the foundation of the whole business.

What Conveniences are Needed?

In the production of the better classes of milk there is usually a milk-house with a boiler and an abundance of hot water and steam for keeping the premises and all of the utensils which the milk touches bacteriologically clean. In some dairies the cooler is enclosed so that the milk will not come in contact with the air of the milk-room, for no matter how clean a room may be there will be some dust in it to get into the milk, and that dust is loaded with bacteria. Sometimes what little dust there may be in this cooler enclosure is laid by a spray of steam before the operation of the cooler begins. Where the highest grades of milk are produced, the ideas of cleanliness are carried so far that the cows' udders are washed and carefully wiped before milking, and the milkers wash their hands before washing each cow.

Why Certified?

The purpose of the medical associations in securing certified milk is to have clinical milk for their use in feeding invalids and babies. The improvement of the general milk-supply is not a feature of the case, although that frequently happens as an indirect result of the agitation and the educational influence therefrom. The milk commissions are not organized to improve ordinary market milk. GEO. M. WHITAKER.

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Poultry-Raising

How About Quality?

MOST of my life has been spent in the city, and, ever since I can remember, fresh, nice-looking even-sized eggs have been hard to get in the city or town market. As a physician, nothing is more difficult to get down my patients than an egg. In the hospitals, where eggs are the principal diet for invalids, never a sweet, nice-flavored, real, genuine, fresh egg have I found, and I have had a wide experience. People cannot live in the cities and raise hens. The majority who are supplying eggs through hucksters and commission merchants live miles from the principal markets. Here I am living in a beautiful section, fine climate, but miles from a good market. I came to this part of Pennsylvania on account of my health and incidentally to indulge a hobby which I have had since a child—namely, to have a poultry farm. So long as I had an agent in New York who saw that my eggs were delivered at once to customers, I did well. When people here were getting from the local hucksters, who go around once a week collecting, sixteen cents a dozen, I was getting thirty-five and forty cents a dozen in New York, but my eggs were from Single-Comb White Leghorn fowls fed on steamed alfalfa, a variety of grains, eggs guaranteed non-fertile. The alfalfa egg is the finest flavored and richest egg in the market. No manure-pile for my chickens to scratch in. Wire nests, no lice, clean yards and houses. Sickness has prevented my sister, who did the selling for me, from attending to this business this summer, so I tried local markets, with the result of learning that my eggs with a guarantee won't bring me one more cent a dozen than the stale, dirty-looking eggs the huckster gets and sends to market. I have been through the stores and markets and not yet have I seen eggs like mine. Of course, I know as soon as I can get to Philadelphia I will find a market for my eggs. I am now getting eighteen cents a dozen for eggs from the hucksters, and not a single customer hands him such eggs as I do, yet my fine eggs are going in with the mongrel, manure-flavored eggs. I am not taking in enough to pay for my chicken-feed. I keep account of every cent taken in and put out in the business. There certainly has got to be something done to bridge over this chasm between consumer and producer.

The states are sending out instructors to the farmers. The time has come for them to send instruction on how to manage a market and get money for our produce. I am writing to state authorities about this, and before I get through we will see if something cannot be done. My ideas are rather crude as to just how we can begin. Do you suppose the United States Department of Agriculture would aid a cooperative movement? I am going to write same for publication, discussing my experiences and what I have seen. Poultry papers and magazines are full of articles: "The money in poultry," "Fine business and easy work," etc.

People are rushing into it and coming from the cities, where they know from experience eggs were scarce and poor, but they find, in their position as producers, customers, or the market, for fresh good eggs are poor pay and hard to get.

C. H. WIKLE.

EDITOR'S NOTE—There is a plea here for having produce sold for its quality, as well as its quantity. Farmers will be getting more satisfactory prices when they come to help one another—some would say cooperate.

The Cost of Twelve Eggs

IT COST me about seven cents per dozen to produce eggs from May 10th to June 10th. This was the cost, including the feeding of all stock, except those hens brooding chicks. Many of these hens had just finished hatching, and several became broody during the month. If only those laying had been considered, the cost would have been less. I put all of one variety in one yard (24 in number) and fed them for the 31 days:

25 lbs. bran, at \$1.50 per 100.....	\$.40
1 bu. corn, at 85 cts.....	.85
1 bu. oats, at 65 cts.....	.65
Oil-meal10
	\$2.00

The grain cost \$2 for feeding the 24 hens. I had plenty of lettuce and lawn clippings, also table-scraps and cut bone was fed, when I did not consider in the cost, as it cost me nothing. The hens did not lay but from 5 to 8 eggs a day the first ten days, but gradually laid better the last of the month. During the 31 days they laid 314 eggs, or an average of only a little better than ten a day.

I sold six of the hens the third week at \$2 each. This left me only 18 hens, and during the month of July I got more eggs

from the 18 than I did from the 24. The 314 eggs would have brought on the market 24 cents a dozen, or \$6.28, leaving a profit of \$4.28, not including green stuff and bone.
A. E. VANDERVORT.

The Hens Help Out

THAT boy of yours may be a good boy as the ordinary run of boys goes. A boy is not naturally bad, but his associations and environments often lead to his downfall. These remarks are inspired by watching a youngster whose parents bought for him an old hen with fifteen chickens. With keen delight and rebounding energy that boy is in the chicken business. His brood is his capital. He is to have all he makes. The small flock of chickens keeps him off the street. So let the boys have all the chickens they want.

It may be the turning-point in their lives, and qualities of thrift may be cultivated that will be the stepping-stones to a successful business career. I know of a widow whose source of income is largely from a flock of hens. Good care and management make for her a well-filled egg-basket. The field is big and wide. Many another woman can do as well as this lady has and possibly make more than she now does and have duties much less arduous.

Another lady has sold five thousand eggs at five dollars per one hundred, for setting purposes. It is work she delights in. If misfortune should come, she has fitted herself so she can keep right on. Surely the hens help out.

The person who can produce nice poultry and fresh eggs will find a steady demand at profitable prices for all years to come. All that is necessary will be to get in line for one or more branches of the poultry business, and then conduct the combination on the same businesslike plan that has been successful with others, and the limit of profit is bounded only by one's time, strength and ability. Women who need money, diversion from sorrow or anxious care, and boys or girls who idle away time upon the streets or in questionable company, will find poultry-raising a never-failing source of comforting deviation or innocent pastime, as well as a financial reward for time and effort given these bright little creatures.

Some time ago a party said to me: "Chicken raising is nothing but a fad." Even so, it does one good to have a hobby to ride if "they only get there." It pays to ride a safe hobby. There is nothing more profitable than the "fancy-fowl fad." Surely the hens help out.
Mrs. B. F. WILCOXON.

Hints About Hens

IT IS easier to keep the hens' quarters clean than it is to fight disease. Ventilate the hen-house.

Use wire nests, even if of home manufacture. Once a month burn the straw, wipe the wire freely with kerosene (coal-oil), and put in fresh straw.

Use the drop-board scraper every day. Have the floor clean and dry under the litter.

Warm the drinking-water a little if there is any chilliness in the air.

Be generous with your sour milk. Watch the hens for superfluous fat.

Provide plenty of dry earth and coal-ashes where the hens may dust themselves, and there is little danger of body-lice in a clean house.

Once a month paint the roosts with coal-oil, using a broad paint-brush, and pour a little into any cracks about the ends of perches.

Place a shallow pan with a little kerosene in it where the hens have to walk through it in entering their night quarters, and mites are not apt to give trouble.

If the work of depluming mites becomes evident, mix one part kerosene to ten of lard, and rub well into the flesh and roots of the feathers where they seem to be falling out. Repeat twice a week until the mites are entirely killed.

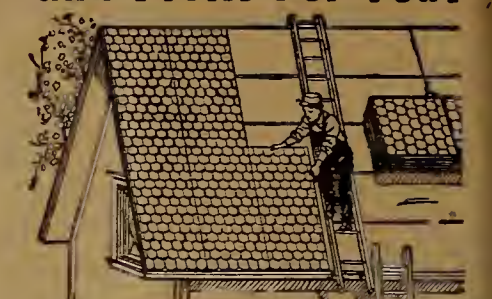
Be generous with fresh air and water and sunshine.
ALICE M. ASHTON.

Poultry Departments

OUR farmer poultrymen are not so free with their fountain-pens as are the exclusive poultry people. We should be glad to hear more from the farmers and their wives, sons and daughters. Give the rest of us the benefit of your experience in breeding, feeding, making and losing money, in hens, turkeys, ducks, geese, guineas, squabs, peacocks, swans, partridges, pheasants, jungle fowl, cranes, ostriches, dodos or auks—anything in the poultry line.

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Garden and Orchard

Sugar-Maple Borer

THE high cost of white sugar and the steady decrease in the number of maple-orchards is bound to cause a higher price for maple syrup and sugar. Consequently it is well worth while to watch existing trees carefully, and keep them free from enemies. As a street and lawn shade-tree, also, the sugar maple is bound to become of increasing importance, as the elms are killed by the elm beetles, the chestnuts by the chestnut disease and various other trees by other enemies.

The sugar-maple borer is one of the few serious pests that attack this tree. The beetle is a handsome insect about an inch long, with a nearly cylindrical body marked on the back in yellow and black, as represented in the accompanying drawing by W. I. Beecroft. These beetles may often be seen



in summer, especially during July and August. They lay eggs in the bark of the maple-trees. In a week or so each egg hatches into a small whitish grub that begins feeding on the bark and burrows upward through it, making a small cylindrical channel as it goes. This burrow has an outer opening in the bark, through which the brown frass, or castings, of the little grub are pushed. These sawdust-like castings can be easily seen during autumn and winter.

These borer larvæ grow slowly. The first autumn after hatching they do not get beyond the outer bark, but remain quiet in the shallow burrows until spring. When they become active again, they extend their burrows deep into the solid wood, and continue to mine it in all directions. The little grub grows into a large, white, legless worm, made up of rings or segments, with a brown head and hard jaws for gnawing the wood. Finally, it changes to a pupa, or chrysalis, near the outer part of the trunk, and then again changes to an adult beetle like the one that laid the egg from which it hatched.

An examination of the trees in autumn or winter will generally show the brown, sawdust-like castings on the surface of the bark. When these are found, it is easy to dig out the little grubs before they have done any particular damage. Such a yearly scrutiny should protect these valuable trees from this pest at least.

CLARENCE M. WEED.

Quality in Seeds

TWO seasons ago, I paid a fancy price for an improved strain of Rocky Ford melons. The seed were fine-looking, plump and clean. I planted them, but because of unfavorable weather conditions I lost them. I sent for more of the same kind at the same price. I planted them, and my resulting crop did not yield me a dozen melons of the true Rocky Ford type. Last spring I paid extra price for seed of the Long Island Beauty muskmelon—from another seedsman. Some of my melons had the characteristics of the Jenny Lind, others were of the Rocky Ford type. Perhaps a bushel of them were of the Long Island Beauty type—and this from a half-acre plot.

A field of cucumbers of the White Spine variety, secured of one seedsman at a fancy price, showed no superiority over the ordinary strain of another seedsman's at the usual price.

It seems that one cannot be sure of anything outside of his own selection.

Onions, cabbage, radishes, lettuce, turnips, beets and such seeds as are procured at the sacrifice of the entire vegetable can be had true to variety from established seed-houses; however, the great difficulty seems to be with melons, squashes, cucumbers, tomatoes and other products that allow of a separation of the seed from the edible portion.

It is true that these vegetables deteriorate rapidly under unfavorable conditions of growth, but they do respond readily to careful methods of selection. Size, color, firmness, prolific qualities, flavor and earliness are distinctive characteristics demanded in vegetables. These traits are handed down from the parent plant and emphasized in

the resulting products by good soil and climate. If the farmer can get good results from selection, the seedsman should be able to guarantee them.

Until these conditions are assured, the farmer will have to do much of his own selecting.

Since seed should not only be selected from the best specimens but from those ripened at the most propitious time, under the most uniform soil conditions, it would be wise to prepare for next summer's seed-saving by setting apart some favorable portion of each field crop and giving it especial care.

Good seed-selection means better products and better prices. The question is, where to make the selection. Every practical farmer knows the best market varieties of any kind of vegetable. He knows, too, that strains vary greatly, strains that have deteriorated differing so from the true type as to seem like another variety.

When a farmer has a poor strain, he seldom feels that he can afford its improvement by the slow process of selection through successive seasons. He naturally wants to eradicate the old and get the true type at once. He turns to the seedsman to help him out of his difficulty, only to lament that the glowing description of certain vegetables in many a seedsman's catalogue is truer to type than are the seed.

M. ROBERTS CONOVER.

To Protect the Hose

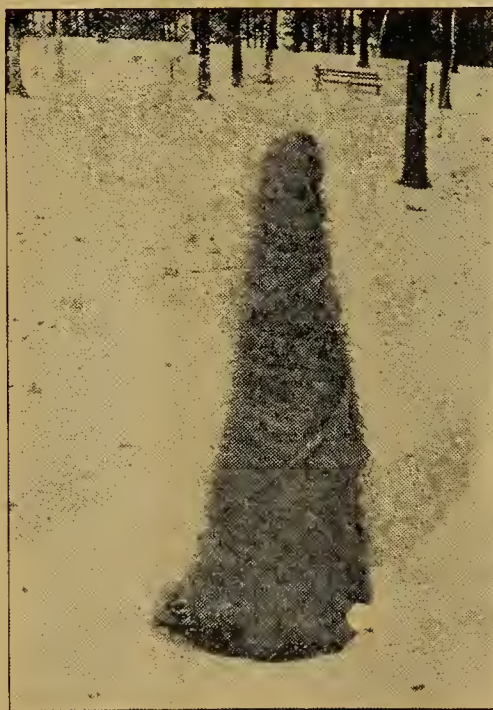
MOST spray-liquids are hard on the hose used for them. The worst is the lime-salt-sulphur dope, since in most cases it is used hot or at least warm. To keep the hose from spoiling from outside injury, we have most always wrapped the new hose with cloth and wire.

We make strips of cloth, overalls, blouses, for cloth of that strength is cheap and strong enough for this work. The strips are two inches wide, and we sew them together until we get what we think will cover the entire hose. Then roll in a ball and wind around and around, lapping about half over on the next layer each time. Fasten securely at each end, so that it will not start to unwind when you are at the spraying job. Next, take about No. 14 or 16 wire, and twist around the hose in just the opposite direction from which the cloth is wrapped. Make the wire about as far apart as the cloth strips are, and fasten at both ends as solidly as possible. The wire, if used at the ends as a fastener will greatly help to hold the hose onto the connections and save a blow-off when the pressure gets excessive. Most connections between the pipe and hose are there to stay, yet even the best will let loose at times.

R. E. ROGERS.

Wrapping Tender Trees

YOU may have some small half-hardy trees or shrubs on the lawn, a magnolia, for instance, or a tender rose, or young fig-tree, or even an "English" walnut (as I have), and fear that the tender growth of the past



season will suffer during the coming winter. By all means wrap them with a coat of hay or straw. The best material for this purpose, undoubtedly, is marsh hay. This is long. It packs close. It is easily twisted into ropes for tying. Tall rye-straw, cut before the grain fills, is perhaps the next best thing. The ropes may be twisted out of marsh hay. Set the tall hay or straw up all around the small tree or shrub to be protected, in the form of a pyramid or cone, and fasten it in place by tying the hay ropes (in the absence of other twine) all around it. The tree or shrub then appears as shown in the picture.

T. GR.

Fruit will not keep fresh, palatable, or fit for human food in a cellar that is littered with all kinds of rotten or decaying fruit and vegetables. Anyhow, such a cellar is a menace to health.

Harvesting the Cranberries

CRANBERRIES suggest the holidays. The little red fruits are never seen on the markets except for a few weeks in the fall and early winter. Then the children think of roast turkey and cranberry sauce. But cranberries are good for making pies, and for eating with other things beside roast turkey. The demand is always greater than the supply, and some grocers have their cranberries all ordered before the fruits arrive from the marshes.

Wild fruits are always appreciated because they are hard to get, and have a flavor different from cultivated products. Cranberries are wild fruits, coming from low, marshy lands, in different sections of the United States. There are districts in twenty states where cranberries flourish, the crop generally consisting of 25,000 acres. In some seasons the fruits are not all harvested, on account of water flooding the marshes and covering the vines, that drop to the sand and are soon buried in the moss.

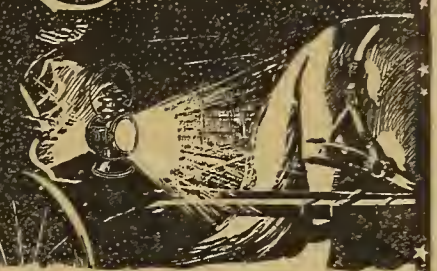
Cranberries grow on slender, creeping vines, the berries being on stems four to six inches above the surface. The land must be kept clean of weeds and grass, in order to insure good crops and enable pickers to get at the fruits in the fall. The berries are generally picked by women and children, who crawl on their knees along the marshes, pull the berries into shallow milk-pans, by means of wooden rakes, and then carry them to the packing-houses. A good picker can collect forty to fifty six-quart pans of berries in a day, providing the rake is used to strip the fruits from the vines.

Packing cranberries is an interesting and tedious work. A trough about twenty feet long and six inches deep is set at an angle of twenty or thirty degrees, and a cloth bottom tacked or spread inside. That is usually of gunny sacking. The berries are poured in at the upper end and left to roll down the bottom. The cloth catches the leaves, and unripe berries, and lets the perfect fruits pass down to a box. Then the good ones are poured into barrels about the size of ordinary flour-barrels. The barrels are frequently left in the sheds, near the marshes, for six weeks, to let the fruits ripen, before being shipped to market.

Making a cranberry-bed, from an old wooded bog, is quite expensive. The stumps are all taken out, logs burned, and the top surface, or peaty soil, removed. Then the level tract is covered with sand for about six inches, and the wild cranberry-cuttings set about eighteen inches apart in rows. All the cultivation given is to keep down weeds.

JOEL SHOMAKER.

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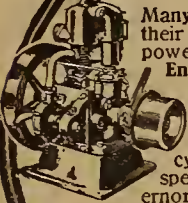
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GARDENING

By T. GREINER

We Have Lettuce in Winter

EVEN without greenhouse facilities, without hotbeds or cold-frames, we can easily manage to have all the good head lettuce, and that of best quality besides, that we may want for Thanksgiving, Christmas, New Year's and later. Of course, we must first grow it in open ground, by sowing seed during August and September. We had an abundance of fine lettuce-heads from the garden during October. Then, when the first severe winter weather came upon us, I got a number of flats (boxes about four inches deep) and into these I placed, close together, the best heads then still out in the rows. They were carefully spaded up with some soil adhering to the roots, and planted in the boxes. I then took the boxes and placed them in an out-of-the-way spot in an unheated greenhouse, protecting them from frost during cold nights. They are keeping in first-rate order, and we enjoy them hugely. The lettuce would keep just as well, however, if the boxes had been placed in or near a window in our ordinary cellar where other vegetables are kept, and where the air is a little damp, and no frost ever enters. It is one of the pleasures of the good gardener to have these things at such times. Every reader of the FARM AND FIRESIDE might have and enjoy good lettuce now just as well as we do. There is no great difficulty in the way, no extra equipment needed, except the foresight to sow a row or two of Big Boston or some other equally hardy good heading lettuce at the proper time, and then to take proper care of it. It's worth the trouble!

How Tastes Differ

We find that tastes differ even in horses, cows and other animals. How much more must tastes be expected to differ in the finer-organized human individual. If one person does not like a vegetable that is popular with the majority, the fault is not always the cook's. It used to be told of one of the central African native tribes that on various occasions when they desired to give to the explorer Livingston (or Stanley?) a real treat, they killed cattle that had previously been fed on green herbage, and prepared for him, as a real royal dish, a mess from the contents of the cattle's first stomach, a sort of greens already partially masticated and perhaps to some extent mixed with the animal's gastric juices. A near friend of mine, speaking about spinach and kale, tells me, jokingly, that he would almost as soon eat the royal dish mentioned as spinach or kale, but that, in a pinch, he might eat beet-top greens. As Professor Massey and others pronounce Swiss chard, if properly prepared, "as good as spinach, and in fact hardly distinguishable from it," my friend does not care to plant this much-praised chard. I remember that as a youngster at home I despised spinach, although my good mother was known as a skilful cook, and undoubtedly had the mess prepared just right. Now, however, I think as much of spinach, in early spring or late fall, as of any other garden vegetable, and, with my whole family, without exception, consider it a most delicious dish. We like it especially on toast, and with fried eggs. But it is good, to our tastes, in any shape.

Outdoor Root-Cellar Best

I can do fairly well in keeping vegetables during the winter in the ordinary dwelling-house cellar. We manage to have our squashes until pretty well along toward spring. Last year we had also a full supply of pie-pumpkins that lasted until pumpkin-planting time. Our cellar contains the roots we will need during the winter, some onions, apples, etc. But for keeping roots, potatoes, apples, cabbages, etc., in best shape, succulent and plump and brittle, from now until spring nothing can beat a regular outdoor root-cellar. It is also best for storing celery for that season's use. Years ago we used to store our potatoes, for spring's use or sales, in pits outdoors, also some of our surplus apples. Sometimes there was some loss, when frost penetrated the covering, or when drainage was not properly seen to. But when the potatoes or apples were shelled out of their straw, earth and manure covering in the spring, they always showed up in prime condition. No apples could be crispier, no potatoes plumper, no beets more succulent, than those wintered in these outdoor pits. But this style of wintering roots has been going gradually out of fashion. The potato-cellar is more and more taking its place. The root-cellar is probably now the most convenient way of storing and wintering all sorts of root crops, celery, etc. Cabbage specialists, or rather the big handlers of cabbage, make use of cabbage storage houses about which I will have little to say at this time. The general and older style of building root-cellars was by digging an excavation, say, twelve to sixteen feet

in width and of the desired length, two feet deep, and by setting up a framework on posts, with ridgepole so as to cover the space with a roof constructed of slabs, rough lumber, or poles and straw, corn-stalks and earth thickly enough to keep the frost out. An entrance is provided for on the south gable end and a chance for ventilation at the opposite end. Now, while we have entered the cement age, comes the root-house constructed from concrete. Is it a success or not? I am as yet unable to state.

The man who learns to like everything he gets is happier than the man who gets everything he likes.

Get Together

The garden work that we have to do at this season of the year consists mostly of planning and preparation. But in this we should not overlook the need of organization and cooperation. The vegetable men and women in some states have both their local or state horticultural societies. The members come together from time to time to discuss their problems and to seek information and help in their various troubles. Some of these societies may have branched out (or in many cases would have found it to their advantage to thus branch out) in cooperation for buying and selling, or for dealing with transportation companies. The individual gardener can do very little in the latter respect. A state society, backed up by

Cardinal Grosbeak

THE cardinal is the "redbird" to every farmer's boy, and Kentucky cardinal in southern literature; in Europe, where formerly large numbers of them were sold for cage-birds, they were called Virginia nightingales.

The cardinal seems retiring in his habits, and it is well that he should be, for his flaming color makes him a target for all his foes. He has neither brown nor green in his coat to match the winter or summer "cover" in which he



hides; but, like the children's newspaper conundrum, he is re(a)d all over. And as if his fiery coat were not enough to attract his enemies, his loud-whistled notes of "whit-cheer," or "whe-e-you" would certainly call attention to his whereabouts. Not only does he whistle during the nesting season, but in the cold days of winter when other birds are silent or are entirely out of the country.

With his powerfully built beak he can crack large, hard weed-seeds that other birds could not use for food. The fledglings, like those of other birds, are fed upon a diet of worms and grubs. Boys, feed the cardinal in winter, and protect him at all seasons, for he is our bird friend.

H. W. WEISGERBER.

numbers, and by local organizations, often can do a good deal. It is well to get together. In the big State of New York almost nothing has been done up to within a short time ago in the way of organizing the growers of garden products and making them a power for good, especially for their own good. The first real earnest efforts made in that direction only date about a year back. We now have in this state a "State Vegetable-Growers' Association" of more than sixty bona-fide members, and this is more than could have been said of many now flourishing fruit-growers' associations when they first started. But the advice to "get together" applies with equal force to the vegetable men of every state and even every county. There is plenty of room for improvement in our business as market gardeners, and in all lines of home production as well. The New York State association is ably managed at this time by its secretary, Mr. Paul Work, instructor in horticulture at Cornell University.

A storage pit on the north-side slope is preferable to one on a south-side slope, for the reason that the low temperature on the north side will be more uniformly maintained than on the south side.

Too Much Combination

A Kentucky reader wants "a one-horse garden-drill that has a plate for corn, cow-peas, beans; also that will drill turnips, kale, etc., and distribute the fertilizer as the seed is planted, preferably one with four or five shoes, so that rye could be drilled in standing corn-rows, the extra shoes to be taken off when the machine is wanted to be used single." I am afraid that this is a combination that at present cannot be found in the market. All our ordinary garden-drills that sow one row will do good work in sowing peas, corn and all ordinary garden seeds, large or small. About the only thing that I find necessary to sow by hand is salsify, or vegetable oyster, which, on account of the peculiar shape of the individual seed, does not run well through a drill. I have seen spinach drilled in with a seven-row garden drill drawn by two mules in the trucking regions near Norfolk, Virginia. But even when sowing garden-seeds with a one-row drill, I always have to keep my attention riveted to the drill to see that everything works right. In a general way, I am not in favor of having our garden tools too complicated. I do not like the idea of sowing fertilizers in combination with seed-sowing. The best way to apply fertilizer, in my estimation, is to have it evenly distributed over the entire surface of the land, and then to have it worked in with cultivators, hoes, etc., in the ordinary course of cultivation. I have no comparative tests to back me up in this contention. Yet it seems to me almost self-evident. My experience also makes me favor special tools for special work, the fertilizer-drill for sowing fertilizers, the garden-drill for sowing garden-seeds, the wheel-hoe for hoeing, etc. Some of our combination tools, the Iron Age, Planet Jr., etc., are very good as combined seed-sowers and cultivators, and the same frame answers for both, the combination parts being easily adjusted. Yet I prefer to have a frame for each, and to have ready for use at all times a complete drill, a complete wheel-hoe, a complete marker, etc. The principal manufacturers of such tools advertise in FARM AND FIRESIDE quite regularly. Their circulars and booklets give full information about the style of these implements they make, and this literature can be had for the asking.

Asparagus and Rhubarb

AS HOMELY, commonplace and plenty as these are, they are desirable to a large class, and there are always beginners in gardening who fail sometimes from reasons so simple they seem hardly worth telling.

We had set an asparagus-bed, which came into use duly, and having occasion to cut the same an acquaintance accompanied me to the garden. I began breaking off the tender asparagus-tips, while my friend looked on aghast.

"You will ruin your asparagus-bed if you gather it that way," she said. "You should use a sharp knife and always cut below the soil."

This wise advice saved one asparagus-bed, for, while it might not have killed the plants, it would have prevented the fresh and constant supply of new shoots. If the asparagus is cut below the surface, that stalk is prevented from making any further growth, and the sap is sent back to the roots, which immediately set to work to send out new stalks. Hence in the time of use, if any stalks get broken, cut them down below the surface, and allow new ones to form. It is this constant succession of new shoots that keeps the bed in bearing. Asparagus comes the earliest of all vegetables in the northern gardens: its luscious, succulent tips begin to show as soon as the weather gives any promise of warmth. It may be cut from its first appearance until July, if desirable, then let it mature for another season's growth. As far as my experience goes—some fifteen years—a low place has seemed to furnish the largest stalks. Plenty of fertilizer, plenty of moisture and warmth are the great essentials, and another quite as essential point is not to disturb the roots in trying to cultivate. You may loosen the soil, but this requires great care.

Rhubarb is so easily grown that many fail because of the simplicity. Like asparagus, rhubarb has few but very important requirements.

One great mistake often made by beginners is to use the stalks too close. That is, before the roots are large enough to withstand such close cutting. Let the rhubarb get well started, vigorous, and then give it a careful cutting the first year, if at all. The second season, if properly cared for, it may be cut plentifully.

The requirements for rhubarb are a rich soil with plenty of fertilizer, but a fertilizer not strong enough to eat the roots. Use well-rotted barn-yard fertilizer, if it can be had, but do not use that fresh and strong with ammonia.

You can bring rhubarb forward much earlier in the spring by sheltering it with boxes or barrels. And you can still aid the forcing process by packing about the box or barrel fresh horse-manure. This should not touch the rhubarb, or be close enough to it that it will seep down and ruin the roots. This is used merely for heat.

MRS. ROSE SEELYE-MILLER.

Garden and Orchard

Keeping Winter Vegetables

OUTSIDE of a quantity for immediate use, cabbage, potatoes, turnips, beets, and even apples, may be safely stored in pits outside of the cellar.

A light freeze will not damage cabbage, parsnips or carrots, yet I prefer to have everything safely housed before the genuine cold snap arrives.

Cabbages are placed in a shallow trench, heads down and roots crossed over a slender pole, then covered with earth. Turnips, parsnips and carrots are well covered in mounds of fresh earth, then covered with bark or boards to keep the rain out.

Irish potatoes are placed on a bed of straw or coarse hay and covered to a depth to prevent freezing. Surplus apples are treated in the same manner. We have taken out sound apples the last of March and first of May from these pits. It is the even temperature of the soil, I suppose, that prevents them from decaying. Sweet potatoes are stored in a room up-stairs, where the temperature stays about normal, in paper-lined boxes, with paper between every layer. Some old carpet is thrown over the boxes when a freeze sets in. Apples stored in the cellar are set blossom end down on shelves covered with dry sand. Beets, potatoes, etc., in the cellar are also stored in sand to prevent wilting.

Cabbage may be kept several months by removing the outside leaves and stem end, then wrapping securely in paper. Celery is set in a trench in the cellar and banked with moist sand to the crown. D. B. PHILLIPS.

roots lengthwise, they should be cut into thick transverse slices. They should also be dug a little later in the fall than burdock. Any time before frost being ample. What is known botanically as couch-grass, and more commonly as dog-grass, quack-grass, or wheat-grass, produces a valuable article in the thick root stock. These small roots are washed and then cut into short pieces in an oat-cutter or something similar.

Remember that all roots and herbs must be clean and dry, as well as free from all foreign substances. Prepared in the right way, and shipped to a reliable commission dealer, any noxious weeds become a source of revenue. H. F. GRINSTAD.

Give the boys and girls some dainty fruits and mild meats for their school lunch.

The school garden belongs to higher education, and should not be looked upon as a mere fad.

All dead or decaying trees should be removed from the orchard. Make a note of each, and fill its place next spring with another of the same variety.

Money in Holly-Trees

THE holly is one of the most profitable ornamental trees. Some old specimens are worth two hundred dollars each. Annual cuttings, for Christmas and holiday decorations, often bring more than ten per cent. on the value of the trees. One woman, in a western town, had a holly-tree growing near the house. She sent for a florist to get expert advice on how to move the tree, without danger of loss. He pruned it and paid her \$52.50 for the cuttings. She decided to remove the house and let the holly stand.

Common holly is a shrubby evergreen, bearing white flowers and red berries. It grows about twenty feet high and is a fine

The holly is the plant for the country home. It collects dust and smoke in the city, causing the leaves to become unsalable. In the country, where the atmosphere is clear and pure, the holly attains its highest stage of perfection. There is something romantic and enchanting about the holly. The name indicates its origin, as the holy-tree, used for decorating churches, during Christmas week. The tree has no insect enemies, being clean and bright every month in the year. It requires only a little space in the garden or lawn, and will stand for many years, bringing new joys every winter. JOEL SHOMAKER.

Coöperators Make Money

[CONTINUED FROM PAGE 7]

Lima beans are grown in rows about thirty inches apart. They are planted during the months of April and May, and the harvesting begins the last of August, continuing until about the middle of October. There are about thirty thrashing outfits in the various fields at harvest-time, each employing from twenty-five to thirty-five men, in addition to the various numbers in each field who pile the vines into piles for the harvesting-machines. On account of the possibility of early fall rains, which sometimes do considerable damage to the crop, the big separators begin to thrash out beans at from seven to eight o'clock in the morning and continue until from eight to ten o'clock at night.

After the thrashing process, the bean-straw is baled, or otherwise preserved, for stock feed, if it has not been seriously injured by early rains. It is always in demand as such, and often reaches a value of ten and twelve dollars per ton.

There is quite a prevalent idea abroad outside of the lima-bean district that the bean-vines require poles to climb on, but the belief is erroneous. The vines are allowed to grow freely upon the ground, and as they reach maturity, if the crop promises to be good, an unbroken carpet of green is spread before one's eyes, often for miles in every direction. In such localities as Oxnard irrigation is also unnecessary, and during the growing season the only care required by the crop is the cultivation commonly given corn or any similar crop.

For the past three years the University of California has had a body of men in Ventura County working toward the development of a lima-bean seed that will possess greater productive ability. By careful selection from thousands of vines and by numerous experiments the effort has already proven partially successful, and it is believed that within a season or two the seed now developed will have been raised in sufficient quantities to make it obtainable for commercial purposes. This should consequently result in materially increasing the already increasing yield per acre.

Under the supervision of Prof. G. W. Shaw, the university is now preparing for distribution an exhaustive bulletin on these experiments.



"Experiment?" said Mr. Smith, "there is no experiment to it at all. It's an established farm business now. I secured 1,200 acres of uncleared land at \$10 per acre about three years ago. Last year I put 90 acres to rice—this year 160 acres. The profits from these two crops will cover the cost of the entire 1,200 acres and leave some money besides. I am getting 25% on \$100 valuation (about 75% on actual investment). Back home, at LaPorte, Ind., the best I could make from farm property was 5% on \$100 actually invested."

M. F. Smith was talking to a man in the smoking car, who was on his way (via Cotton Belt Route) to the Arkansas rice fields, to (as he said) "investigate things down there and then, maybe, try out a small tract." Neither man knew the other. They just "got to talkin'" as men will in a smoking compartment. As I write, it's too early to know much about this year's yields, but I just received this first report:

"Oct. 1st, 1911.
"Dr. A. D. Bunn, Humphrey, Ark., had up to Sept. 28 threshed 40 acres of his rice field. 9½ acres made 1,000 bushels, and 30 acres brought 2,880 bushels—all selling for 92½¢ per bu. at the thrasher, bringing him \$89.72 per acre."

Let me tell you more

Write to me—today—then I can send you our 50-page book, filled to the brim with the experiences of corn and wheat farmers, who went to this wonderful Arkansas rice section to "experiment" and stayed there because they made many times more money than they did "back home." Scores of pictures. Write me today!

E. W. LaBEAUME,
General Passenger Agent
1601 Pierce Bldg., St. Louis
Low fares twice each month
via Cotton Belt Route to the
Arkansas rice fields—ask me.



IN THE September number of FARM AND FIRESIDE we read an article on "The Staked Tomato," wherein was stated the fact that "the plants had reached well up to the top of the six-foot stakes." Here is a picture of another wonderful growth of tomato-plants, also the grower, Mr. S. L. Jones, Barnesville, Ohio. On a bit of ground (in the back yard), sixteen feet long and two feet wide, he planted four tomato-plants early in May. They grew until by September 18th (when the above picture was taken) they were over eleven feet high and still growing. They bore many large, fine, smooth tomatoes, beginning early in July. It shows what can be done by care and attention. MRS. DORCAS MURPHY.

Handling Medicinal Roots

THERE are a number of our common weeds which are of medicinal value, and anyone can make it profitable to dig the roots and market them at the right season of the year. Almost all roots should be dug in the fall, but in order to be marketable they must be properly cared for. All roots should be kept as clean as possible, and it is usually best to wash them and remove all strings. The drying should be thorough, and must be done in the shade. A barn loft or any place similar is the best. If the drying is done in the shade out of doors, care must be taken that the dew never falls on them, since it will cause mildew and discoloration. The roots should be well matured when harvested, since they then contain more of the medicinal qualities, as well as more weight, when dried. Some of them will of necessity be sliced or quartered, while others may be dried whole, but the drying should be thorough, so that they will snap when bent between the fingers. As soon as perfectly dry, they may be bulked or put in sacks or bales and sold. There is no economy in holding for higher prices, as some of the roots deteriorate in quality as well as shrink in weight.

Since some of the roots require a little different handling, I will give the methods I have found most satisfactory. Burdock, sour dock and, in fact, all the dock family should be dug in August or September, and the roots sliced and washed before drying. Being branched, they may be pulled apart. A common-sized root should be split in halves or quartered. May-apple can be handled in much the same way. Pokeweed is a very important article, and it must be remembered that, instead of splitting these

tree for the garden or lawn. Trees may be grown in almost any section where evergreens flourish. The harvest season is just before Christmas. Then the branches, bearing red berries, are cut and shipped to all the cities of the holly world. They are used for making Christmas wreaths and decorations for the holiday season. The trees are cultivated extensively in various districts of the United States and England, where the growers get good yearly incomes from a few trees in the yards.

There are two ways of propagating the holly-plants. The best plan is to sow seed, in boxes, in the fall or spring, and raise the seedlings. The beds should be of sand and kept moist and protected from freezing and hot sunshine. The American and European varieties are grown side by side and seed may be bought from any seed-dealer. Cuttings of holly can be put in the ground, in moist and shady places, where they will send out rootlets and make strong plants for growing trees. Trees sell by the measure plan—that is, one foot or less sells for one dollar and two feet or more for two dollars. When the plants stand four feet or more, they command more than one dollar a foot, because they bear berries.

Holly-trees that produce berries are worth much more than those that simply have green foliage. The barrenness is often caused by too rapid growth of the tree. That may be checked, and the trees made to produce fruits, by cutting the roots with a spade, or by uncovering the surface roots, and leaving them exposed to freezing weather. Holly-cuttings, six to eight inches long, containing berries bring the grower fifty to seventy cents a pound, while the cuttings without berries sell for ten to twenty cents per pound.

Wood Ashes For Hogs

Thousands of hog-raisers put wood ashes where their hogs can get at them. But one can of Lewis' Lye is of more value as a hog-conditioner than all the wood ashes you can heap up. It can be put in the slop—the hogs won't know they are eating it—but you will know that they won't get wormy or have cholera. Don't bother any longer with ashes—get a can of

Lewis' Lye

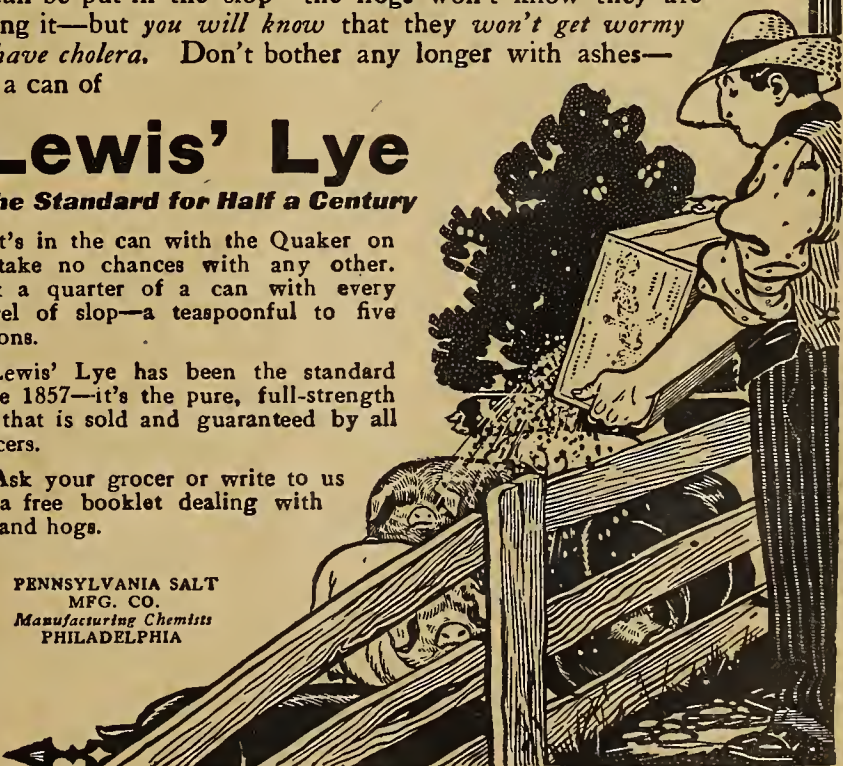
The Standard for Half a Century

It's in the can with the Quaker on it—take no chances with any other. Mix a quarter of a can with every barrel of slop—a teaspoonful to five gallons.

Lewis' Lye has been the standard since 1857—it's the pure, full-strength lye that is sold and guaranteed by all grocers.

Ask your grocer or write to us for a free booklet dealing with lye and hogs.

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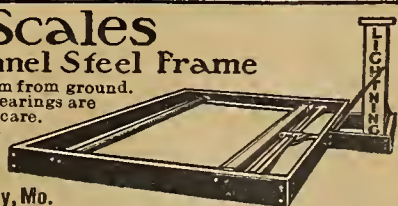


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New Pattern. Solid Channel Steel Frame

Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearings are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform planks. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.

KANSAS CITY HAY PRESS CO., 124 Mill St., Kansas City, Mo.



Prof. Beery's Grand Horse-Trainer's Prospectus FREE!

Every horse owner should get this book from Prof. Jesse Beery, King of Horse Trainers and Horse Tamers. All who love horses should learn the secret of subduing and controlling balky, tricky, scary, vicious horses without the use of whips, curb bits and other cruel devices. Every man who is looking for a profession that pays \$1,200 to \$3,000 a year at home or traveling should learn how hundreds are making big money as professional Horse Trainers with the aid of Prof. Beery's wonderful system.

Emmett White, of Kalona, Iowa, writes: "I would not take \$500 for what you have taught me. You may judge of my success when I tell you that I have been able to buy a home and an automobile solely through earnings as taught by your excellent methods. I am proud of my profession."

A. L. Dickenson, Friendship, N. Y., writes: "I am working a pair of horses that cleaned out several different men. I got them and gave them a few lessons and have been offered \$400 for the pair. I bought them for \$120."

Better write today to make sure of the grand free Horse-Trainer's Prospectus. Tell me all about your horse. Address [23]

PROF. JESSE BEERY, Box 22-A PLEASANT HILL, OHIO

ELLIS USE KEROSENE ENGINES

Gasoline, Distillate—Any Fuel Oil. **QUALITY FIRST**

Smooth running, steady, powerful, quiet. Ten exclusive features. Fine appearance. Finished seven coats engine enamel.

Greatest value in the engine world for the price. Number of 1912 exhibition engines ready now. Get one. Special price while they last.

Free Trial No obligations till satisfied. 10-year guarantee. Write for Catalogue

ELLIS ENGINE CO. 112 Mullet St., Detroit, Mich.

3-12 H.P.

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SEE THAT SHUTTLE

This Awl sews a lock stitch like a machine. Just the thing for Repairing Shoes, Harness, Buggy Tops, etc. Sew up Grain Bags, Tents, Awnings and Wire Cuts on Horses and Cattle.

Makes a neat, durable repair and quickly. Has a diamond point, grooved needle, a hollow handle, plated metal parts, a shuttle, and a bobbin holding 24 yds. of best waxed linen thread. No extra tools needed. Can be carried in the pocket. Special discounts to agents. S. Perrine says "Sold 9 on way home with sample." W. Spenser writes "Sold 11 first 4 hours." Reg. price \$1.00. Complete sample with 1 large, 1 small, 1 curved needle, a shuttle, and a bobbin of thread sent postpaid for 60c., 2 for \$1.00. Get one, keep it a month or so, mend all your Harness, etc., and then if you are not satisfied return the Awl and we will refund your money. Send quick for sample and instructions.

ANCHOR MFG. CO. Dept. 1030 DAYTON, O.

Will Do Everything but "Buck"

Here is the engine to do your work. Uses only a gallon of gasoline a day. Pumps all the water the average farm uses, for a cent a day. A hundred or more economies in work possible when you have a

Sturdy Jack 2 H. P. Pumper

Air-cooled or hopper-cooled.

Write for our four engine books and learn how to judge an engine. Don't be fooled with cheap engines that have to be chopped up.

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Backache weighs only 41 lbs.

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SAWS DOWN TREES

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Use 30 days, free, my 1912 Chatham Mill. No freight to pay. No money down. Clean and grade all your grain. Then take your time in paying me my low price, or send mill back at my expense.

Chatham Mill actually grades and cleans 75 seed mixtures—Oats, Wheat, Corn, Barley, Flax, Clover, Timothy, etc. Takes Oats from Wheat, any mixture from Flax, Wheat, any mixture from Flax, Timothy, etc. Sorts Corn for edge-drop planter. Takes out all dirt, dust, chaff and weed-seed from any grain. Handles 80 bushels per hour. Hand or gas power. The Outfit loan free includes: 1912 Chatham Mill, Bagger, Power Attachment, Corn Grading Attachment and Instruction Book.

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Farm Notes

Parcels Post Again

OME men need to be hit with a brick, some need to be kicked, some can take a hint.

Do you pay your hands before they do the work?

Did you ever get paid before you did the work?

Does Mother Nature pour out her store of plenty until you do a certain amount of scratching around, a certain amount of sowing and reaping and sweating?

Doesn't the man who labors have to labor before he gets the cash that represents the day's work?

A good horse will walk three miles an hour and draw a load of eight hundred pounds.

Therefore, in eight hours, or one day, he would walk twenty-four miles. The question is, will you make him do it?

At present he walks and trots the twenty-four miles in six hours, gets in at four o'clock in the afternoon, and his day's work is done.

Is your day done at four o'clock in the afternoon?

If not, why? Don't answer. I know. Your reason is the same as my own. You have to work more hours than that to make a living. You cannot afford to quit at four o'clock.

When you go to mill, do you just take one bushel of wheat, or do you take a couple of bags?

When you go after salt, do you just get a nickel's worth, or do you bring home a barrel?

Do you harrow four feet, or twelve, at a time? You harrow twelve; it don't pay to harrow less.

You cannot afford to pay a man to walk around all day and work four feet of ground when the same man might as well as not be working three times this amount.

You cannot afford to pay a man to haul you sixty pounds of mail when he might as well as not be hauling two hundred and fifty pounds.

That would be just the same as hauling another man along, and you know, if it wasn't against the department's ruling, that lots of the carriers, especially those newly married, would be hauling their wives along every trip. I don't blame 'em.

It don't do us farmers any good to roar among ourselves put back of the barn in Oskosh about the P. P.

A penny spent on a postal card, or a quarter's worth of two-cent stamps will do some good.

How bad do you want parcels post?

Would you give a quarter to have it established? Just one quarter to have it! Do it. Buy a quarter's worth of stamps, write a dozen letters, send one out every day till they are all in.

There are FIVE HUNDRED THOUSAND of us in this MAMMOTH FAMILY.

Let's every one of us do just this thing, beginning with the very day that this paper is read by everybody.

Are you on?

Twelve days of a half million a day will mean six million letters. Somebody would sit up and take notice.

It would do the trick. What do you say, will you do it?

"I want parcels post," signed "William Smith, Farmer." That is enough to do the business.

ARE YOU ON

25

Borrow My New Mill

Clean and Grade Your Grain FREE!

Use 30 days, free, my 1912 Chatham Mill. No freight to pay. No money down. Clean and grade all your grain. Then take your time in paying me my low price, or send mill back at my expense.

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Send NOW for My Free Book— "The Chatham System of Breeding Big Crops." Name on postal sent to nearest address brings it.

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Concerted action is the thing. Do it to-day.

A half million at one mail, well scattered among the members of Congress, just as the circulation of this paper is scattered over a dozen central farming states. When the letters begin to pile up on the desks of the members, the other fellows will begin to wonder what is up.

The express companies have the jobbing houses scared to a frazzle, and they and the retailers are fighting the parcels post tooth and toenail.

We can't blame the express companies; it means life or death with them. If they lose the short haul on small packages, they lose the profit end of the business. They don't want the other end.

We don't need their worn-out equipment. Let the merchant who caters to the mail trade get his stuff into the post-office; we of the country who supply the hamper trade will pack our baskets and have them ready on the fence in a row for the rural carrier. They won't need to run an express wagon out from town to get our stuff. No, not at all.



Brass-mounted harness is expensive, and really we don't need it in the way of efficiency.

I don't care whether our carrier drives a white horse or a blue mule, just so he gets the mail here with a reasonable degree of promptness and regularity.

We need for a motto, "Less monkeying and better results."

Have you got a quarter? Will you spend it?

Will you be one of one million to mail one letter each day that Congress is in session until we get parcels post?

This thing has dragged long enough; it's time to get busy.

We farmers are only so strong as we exert ourselves.

We can have parcels post if we want it.

This appeal is to you. It is written by a farmer who wears overalls every day except Sunday, and part of that.

All the central leading farm papers will print this.

These papers are with us and for us.

Are you for yourself?

Don't write back, write on to your congressman. Your hand, brother, your hand.

ERNEST MERRILL RODEBAUGH.

'Phone Company Injures Trees

WHERE shade-maples border a farm and are at side of way, but within the legal thirty feet from center of road, has a 'phone company lawful right to top limbs, attach lag screws, etc., to same? Has it a right to use said maples as attached stays for 'phone poles, etc., where said company has never been granted right of way? What rights, if any, has landowner in such a case? So asks an Ohio reader.

State laws authorize telephone companies to use public highways. They have no right to injure or remove trees belonging to landowners and not interfering with public travel, but they may attach their wires, provided they do not injure the trees. Their injury to trees on account of their wires give you the right to sue them for damages. There is a criminal law for injury to your property.

The farmer who habitually retires too late at night is apt to have to retire from the farm sooner than he wants.

A Christmas Suggestion

To School Boards

Buckhorn, Pennsylvania,
October 19, 1911.

FARM AND FIRESIDE, Springfield, Ohio—

In our high-school work here we are trying to give our boys and girls from the farm some things which will help them to appreciate the farm more. I have decided that a close attention to the leading farm paper will be one of the best means to our end.

We desire FARM AND FIRESIDE until school closes in the spring. I am myself a subscriber, but our people prize the files too highly to allow me to use the copies in school work. From a careful comparison of the various farm papers during my course at the Pennsylvania State College I have picked upon FARM AND FIRESIDE as the leader of them all, and I certainly want all my boys and girls to become acquainted with it.

Yours truly,
C. G. McBRIDE.

The Farmer and the Dollar

FOR several decades each recurring census has shown a stationary or declining population in eastern rural counties and states where farming is a severe occupation. Abandoned farms have so long been discussed as to have started the rather hysterical "back to the farm" movement without the aid of any new census demonstration. Now, when the current census has disclosed a decline in the population of such a banner agricultural state as Iowa, everyone has been obliged to take notice that great fundamental changes are taking place in all rural regions. The growth of cities shown by the census as regularly as the rural declines in population clearly connects the two phenomena and everybody now understands that both constitute one and the same problem. But the development of cities is purely an economic matter, and its relation to farming creates a purely economic subject of discussion. And it cannot be disputed that the solution of the great general problems indicated by the "farmers' discontent," the exodus to the cities and the impending failure of the present system of farming as a means of production, must be sought in economic science and economic wisdom.

Why Men Go to the Cities

In search of the key to the farmers' discontent, suppose we investigate the attractions which fill the cities with countrymen. They are:

One: Good wages, the product of the economic wage system.

Two: Simple, easy labor with short and regular hours, the result of economic division of labor.

Third: Having ready money, and spending it at will, the actual practice of economic exchange which seems to have an unaccountable attraction to most people.

This is the strong point of the present economic system and has become one of the leading habits of civilized living.

Fourth: "City conveniences" in housing, including heat, light and water supplies, with other labor-saving arrangements. Food, clothing and shelter are the primary wants, and comfortable shelter is rapidly assuming importance among the economic desires.

Fifth: Life in the crowd is the last of the great city attractions. When the psychology of the crowd is finally established, it will be found to be very largely of economic import. It is not merely a social matter, nor one of isolation. But a really economic system of agriculture would probably supply a set of inter-relations which would take the place of the city multitudes in satisfying the gregarious instincts of mankind.

What Should the Country Have?

Although the country cannot be made altogether urban, city conveniences in the widened sense can be very largely extended. The rural problem of the day is to give farming such an economic aspect as will provide similar conditions of life to those which are so attractive to our population. To do this, we must study all the fundamental city conditions, together with the corresponding rural conditions and doctrines.

When we study diversified farming, we must consider it in the light of economic law and development. We must study the "Hog and Hominy" doctrine in the same light. A study of the economic doctrine of division of labor affords light on many farming problems. A consideration of the economic aspects of practical exchanges affects many questions of practical farming. And it may be predicted that the wage system will yet add to the attractiveness of farming.

Some may persist in objections that such an economic discussion has no relation to practical farming. But it may be replied that it may make a difference in your crop plans for the coming year, your system of rotation, as well as your general practical procedure for a lifetime. In fact, economic conditions should be made a practical everyday matter in the farming system of each individual.

The Farmer Will Make Money

By taking the first steps of an economic farming practice, it may come equally easy to follow up what we may learn as to the later steps until study and practice land us somewhere near the goal of an economic agriculture that can compete in attraction with urban economics development.

Farmers need not be skeptical about such a future development in their occupation. It is now taking place slowly, and when the direction is clearly indicated and the opposing tendencies counteracted, the farmers may consciously participate in the advance, to their profit and with the ultimate result of shaping the progress of events to the farmers' liking and advantage.

Now, lest we forget, let me remind all readers that economics is the "science of business," the science of making a living, and includes the knowledge of the production, exchange and consumption of commodities. The farmer is preeminently a producer of commodities which he sells to buy others for his consumption; and he is, therefore, an "economic man" and must head economic law and participate in economic development.

W. ALDRICH.

Items of General Farm Interest

Started Something?

WHEN anyone takes strong grounds on anything pertaining to fishing, hunting or trapping, he usually finds that he has started something. Mr. David E. Allyn did when he wrote about baits and scents. Here's a letter from a prominent fur and trappers' supply-house:

We notice an article in your November 11th number entitled "More Methods Than One in Trapping." We write you in regard to this, because we think that some mistakes have been made. The tone of it discredits artificial bait or scent in every particular, and we think that you should know the facts.

Our animal baits have proved so successful that they are now used in every section of North America to the great advantage of the trapper. If you will read pages of some of the letters that we have received (which we assure you have been entirely voluntary on the part of the writers), it will convince you that there is some merit in artificial baits. These baits are made from formulas which we secured years ago from expert and professional trappers:

If you would write to the Oneida Community, Ltd., Oneida, New York, and get one of the old Samuel Newhouse trappers' guides, and another trappers' guide known as "The Art of Trapping," which can probably be secured from most any book-store, you will find that artificial baits made out of certain oils and other ingredients prove most attractive to the animals they are made for. It is a well-known fact that oil of anise, oil of rhodium, oil of lavender, castor oil, asafetida and similar ingredients properly compounded prove most attractive to different kinds of animals, according to the way the formulas are compounded.

We think that it is due your readers that the question of artificial baits be put before them in an intelligent way, by someone who is not prejudiced. Since we secured the formulas and put our animal baits on the market, a number of other reputable houses have been spending a good deal of time in getting formulas together. We believe that there are other houses that are honestly trying to give the trapper a bait that will assist him in his trapping.

We did not do it in the beginning with the one idea of profit. Our aim was to give the trappers of this country, who are now largely farmers or farm boys, an animal bait that would assist in making trapping easy because of their lack of experience in the art of setting traps to catch the wily animals. For our part we know that we have been conscientious in giving the trappers what we believe to be the best animal bait ever compounded.

It is used by the United States government rangers on the forest reserves. It is used by expert professional trappers, as well as beginners, all over North America, and only recently we have had inquiries for it from foreign countries.

We lay the facts before you, believing that articles of the kind published will do more to keep people from trapping than it will to encourage trapping.

Our baits are sold on a money-back basis. We guarantee them absolutely to increase the catch of the trapper, or money is refunded. This certainly shows our faith in artificial bait. And when we tell you that a ten-dollar bill will cover the amount of refund that we have made during this last season, you can see how well the baits must serve the trapper. We are not selling our baits with the special purpose of making money, but to help trappers catch more furs, as the more furs caught, the more furs we get to handle. When the cost of marketing this bait, together with the cost of the ingredients and compounding, is charged against it, we can assure you there is little enough left.

Now, all ye trappers, old and young, amateur and professional, east and west, north and south, who have used artificial bait, write in and tell us what you think. We want the verdict of the woods and streams, and of the people who follow their long lines of traps and furnish the world its furs.

Multiple-Purpose Breeding

ONCE at a meeting of Shorthorn breeders in England the perennial discussion of the possibility or the impossibility of breeding a real "dual-purpose" cow was resumed. The Scotch breeders—from whom mainly we get our beef Shorthorns—asserted, as our Shorthorn, Angus and Hereford breeders now do, that it is impossible to breed an animal which is good for both beef and milk. An English breeder said, "not impossible, really, you know; but it does take more brains in the breeder!"

The English Shorthorn breeders produce cows that will yield three hundred pounds of butter-fat a year, and whose steers will grade medium to good as beef. Such cows are splendid animals, better for beef than most farm beef-cows, and at the same time better for milk than most farm dairy cows. It would be a fine thing if all our farmers could have them. But they would not satisfy the highest demands of expert dairymen or expert feeders. Breeding for two things at once not only "takes more brains" in the

breeder than does the breeding for one quality, but the highest quality is out of reach in both lines.

This by way of introducing a letter we have received from an esteemed reader, Mr. H. A. Pickett of Howard County, Indiana. Says Mr. Pickett:

I have just read your article on Page 3, October 25, 1911, issue of FARM AND FIRE-SIDE, under the title of "Breeding for Quality."

The author of this article says that breeders of fowls, cattle, or swine may breed for any quality they desire, but they cannot breed for one without sacrificing others. I wonder what he thinks about some of the champion Berkshire boars at the recent state fairs with their extremely short noses, standing on feet like pigs, with more length of body than the elm-peeler and carrying eight hundred to one thousand pounds weight with quality in every action.

Did they breed all the beef qualities away from the Herefords when they put the white faces on them? Then we even have a breed of polled Herefords with as much quality as the horned fellows. How many red, white or roan bulls do we see heading herds of Aberdeen-Angus cattle?

With all due regard for Shorthorns, how many prizes have been won at the Internationals by Shorthorns over the Angus?

It is very strange, but just as true, there are people in this good country who are narrow-minded enough to believe that people cannot improve all the good qualities of any family of animals or fowls. As I have traveled over five thousand miles in the past eight weeks judging at the fairs, I think I know whereof I speak.

That's the other side of it. But, in spite of the excellence of the Hereford, whenever a superfine breeding animal of that family is rejected because of a wrongly-marked face, is not the development of the breed retarded by just the amount of improvement it might have received from the beef qualities thrown away? A breeder of Hampshire hogs or Belted Dutch cattle rejects some animal of finest quality because of the imperfection in



"Help! I've had my pocket picked"

the white belt, and isn't quality sacrificed for color? The fact that splendid breeds exist with color tests and plumage tests does not prove that they would have been no better if the breeders' eyes had been fixed on one mark instead of two or more. Mr. Pickett's letter brings up certain questions of correlation and of fortuitous characteristics which are too complex for these columns, or this writer; but, on the whole, it seems that the farmer may well adopt the policy of breeding for quality rather than color. And if he breeds for more than one, they should both be useful ones, like beef and milk in cattle, or eggs and meat in fowls.

Of course, this does not mean that he should avoid such splendid breeds as those mentioned by our critic, in which color and markings have become fixed by ages of breeding in combination with fine quality. But he can't afford to help fix such combinations in breeds in process of formation.

Dry Hop-Yeast

A WOMAN that I know earns money by making and selling dry yeast. She sells it at the stores in several towns. I think, on commission. She delivers it fresh as often as she thinks necessary, and takes back whatever the grocer cannot use. In this way customers always get a fresh article from which she has gained an enviable reputation. It is made in small round cakes, and six of them are neatly packed and covered with a good quality of tissue paper. Outside of that is a covering of ordinary wrapping-paper securely pasted

around, and on the end of each package is stamped the name it goes by and the name of the town near which it is made. It sells for five cents a package.

I have used this yeast for five or six years whenever I have been out of my own making, and can say I prefer it to any patent yeast. It is the genuine old-fashioned dry hop-yeast. As the woman is a stranger to me, I do not wish to ask for her recipe, and she might not like to give it. But I will give my own, which I have used for years and which I consider equally good. Many a farmer's wife who makes her own yeast has a good recipe which she could use if wanting to make some for market.

Here is mine: Soak some good dry yeast to the amount of one cupful. Scald one cupful of hops with one quart of boiling water, and let steep for ten minutes. Put four large spoonfuls of flour into a pan, scald it with the hop-water. When lukewarm, stir in the yeast. Add two table-spoonfuls of salt, same of sugar, and set in a warm place to raise. Stir down often all day. Next morning stir in corn-meal and some flour to make it stiff enough to roll; cut in cakes with a small baking-powder can, and lay singly on a floured board to dry. Dry in the shade where there is some wind to dry quickly. It should be made in warm weather and dried quickly to prevent getting sour, or it will be spoiled. With a knife turn each cake occasionally to keep it from sticking and so that it will dry more evenly.

MRS. J. P. BURK.

A ladder for climbing into the barn loft belongs to the day when people climbed a ladder up into the garret to sleep. In other words, it belongs to the past. To-day people should have proper stairways in the barn as well as in the home.

Increased Farm Production

THE gibe has been commonly flung at agriculture and those engaged in it that they are out of date and behind others in the adaptation of scientific teaching to practice; but, like a great many armchair theories, this statement is based upon ignorance. It is an error to assume that, because a farmer will not accept the dogmatic teaching of the scientist, he is necessarily at fault. The scientist is dealing with conditions more or less under control, whereas the farmer has to accept what Nature provides. The fact is all too frequently forgotten that agriculture is necessarily a much more slow-moving industry than any other. A manufacturer can adapt his plant as time goes on, to what the market provides, but the farmer is bound down by the annual growth of crops, which take some time to prepare, to be sown, to be grown, reaped and thrashed. Obviously, what takes the farmer five years to accomplish might with the same capital have been turned over in five weeks in an ordinary business. We are, therefore, face to face with peculiar conditions, and it would be obviously very unfair not to recognize that in dealing with them the farmer is greatly hampered. In spite of this, however, he has, largely through force of circumstances, adopted and assimilated the teaching of science in a wonderful degree.

It is not necessary to talk in the language of the scientist to show one's appreciation of scientific work, and whether a farmer speaks of applying so many pounds of nitrogen to the acre or so many hundredweights of nitrate of soda is immaterial. Yet there are faddists of the educational type who would prefer to hear a farmer using the ordinary laboratory and class-room jargon, talking of concrete quantities rather than assimilated wholes.

The productivity of our best lands has enormously increased. This is due, in the first place, to more intense cultivation, to better use of the soil, fewer bare fallows being found than were at one time common, to the discovery of the value of artificial manures, and, not least of all, to a great improvement in the quality of grains, grasses and roots. We are not at all sure, however, that the old-fashioned farmer did not keep his land in as good heart as it is to-day, but we are certain of this, that roguery has all but been abolished from the seed trade, and this has meant a great deal for the farmer. With bad seed the best of farmers are handicapped beyond redemption, and to seedsmen we certainly owe this tribute, that they are doing as much as, if not more than, any other body toward increasing the production of farm crops.

W. R. GILBERT.

Why Complain?

IT is the advertisements of soap, ironware, underclothing, etc., that pay expenses, and enable us to get FARM AND FIRE-SIDE several years for the price of one other farm paper not half so big or good. I have worked in a printing office years enough to know that the ads. pay the bills, not the nice articles we read. The price of the paper doesn't pay for the ink used.

I read all the ads. every issue, and notice when one is changed or a new one slipped in. I like to know the best goods in each line, and where to get them.

A farm paper devoted to strictly farm implements and land and labor ads. is very dry, dull reading.

CLIFFORD E. DAVIS.

HARLEY-DAVIDSON

MOTORCYCLES are now built with the *Ful-Floating* Seat, which takes up all the jars and jolts due to rough roads. This seat adds to the economy and convenience of the motorcycle the comfort it formerly lacked. Rough and humpy roads are as smooth as boulevards to the rider of the *Ful-Floating* Seat.

The *Free-wheel* Control, another exclusive feature of the new Harley-Davidson, permits the starting of the motor while the machine is standing still, thereby eliminating the hard pedaling and running part, so objectionable in the ordinary type of motorcycle. We should like to tell you more about this machine and prove to you that it would save you its original cost over and over again. Send for descriptive catalog.

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TRAPPERS GET BUSY BIG MONEY IN FURS

Over ten million dollars will be paid to trappers of fur bearing animals during the coming winter. Any man or boy living in the country can add a goodly sum to his earnings by trapping during spare moments. We furnish ABSOLUTELY FREE a complete Trapper's Guide which tells you the size of trap and kind of bait to use for the different animals, how to remove the skins and prepare them for market. We also furnish the best traps and baits at lowest prices. We receive more furs direct from trapping grounds than any other house in the world, therefore can pay the highest prices for them. Our price lists, shipping tags, etc., are also FREE for the asking. If you are a trapper or want to become one, write to us today. We will help you.

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Cattle or Horse hide, calf, dog, deer, or any kind of skin with hair or fur on. We make them soft, light, odorless, wind, moth and water proof, and make them into coats (for men or women), robes, rugs or gloves when so ordered. Your fur goods will cost you less than to buy them, and be worth more. It will certainly pay you to look into it.

Our illustrated catalog gives a lot of information. Tells how to take off and care for hides; how we pay the freight both ways; about our marvelous brush dyeing process which is a tremendous advantage to the customer, especially on horse hides and calf skins; about the goods we sell, taxidermy, etc., but we never send out this valuable book except upon request. If you want a copy send in your correct address.

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Crops and Soils

A Battle Royal with Weeds

ONE prominent literary worker not long ago expressed the wish that the men of this world might discover some form of diversion which would so interest them that they would turn away from war with one another. The idea is a good one, especially in these days when the thought of the world is so directed in peace channels.

If this gentleman will take a journey to the country and study the battle the farmer is having with weeds, he will surely come to the conclusion that, whatever may be the case with those who are following other lines of business, the man with the hoe certainly is engaged in the most fascinating, as well as the most profitable warfare that ever engaged the mind of any of the great generals of earth.

Just at the present time I am proving the truth of this in a little tussle I am having with weeds on a spot of ground near the tenant-house on my farm. This bit of ground is not more than five or six rods long by possibly half that in width. Last spring it was thoroughly plowed and marked out for corn, on the supposition that the land would be used as a garden by the hand who worked on the place. A change in plans led to the employment of a man who boards in the family, so that the tenant-house has not been occupied. For a good many years this particular parcel of land has been used as a garden.

In the few months since that garden was plowed there has grown up on it a variety

of weeds that has startled me, the while I have been wondering where in the world the seed came from. A few days ago I set out to root the weeds out of that patch by hand. I assure you I have had a back-breaking job, and the end is not yet. On the outset I thought I might find ten different weeds on the spot. Up to date the number is almost doubled. As I came to these plants I have been jotting them down. Let me quote from this record:

Redroot, pigweed, chickweed, dock, yellow dock, burdock, mallows (or, as the older farmer folks call it, "malice"), smartweed, catnip, catch-grass, nettle, ragweed, "dooryard" grass, Jacob's ladder, motherwort, shepherd's grass, vervain, cockles, mustard, Canada thistle, purslane (or "pussley") and snapweed (or "touch-me-not"), or, as the botanists call it, jewelweed. Others might be named.

An astonishing assortment, is it not? May we not well ask, "Where was the start of all these plants?" I have no doubt that the seeds of many of them have been slumbering in the earth for perhaps years, being brought to light by the deep-set plowshare which disturbed them last spring. But we must look farther back than that and inquire, "How did they come there in the first place?" and my answer would be that the old man who owned the place before we came on it probably bought many of them with his grass-seed.

It is only in recent years that we have had our present facility for having grass-seed analyzed by competent authorities as we may at present by sending samples to our state experiment stations. For a number of years I have submitted little packages of my clover and timothy seed to these experts, and always with results that were often as startling as they were interesting, on account of the fine assortment of foul seeds disclosed in what was purchased for strictly pure seed. Having bought this seed, however, with the understanding that it should be submitted for analysis and found pure or the order canceled, I have thus saved myself the vexation of sowing my farm still more thickly with foul stuff.

The practice of many farmers of buying the cheapest seed possible is one of the worst that can be imagined. The price for a good many years has been high, and the temptation correspondingly great to buy inferior seed. Any man who thinks must see that the policy is a most short-sighted one. The man who indulges his pocket-book at the expense of his farm is simply laying up wrath for himself against a day of trouble which lies in the very near future. Better by far economize in some other way, and sow good, clean seed. The battle we are waging will be well-nigh won when we get our eyes open to this truth.

EDGAR L. VINCENT.



Mallows



Vervain



Knot-Grass



Purslane

New Potash Supply

REPORTS that the scientists of the Department of Agriculture have made valuable finds of supplies of potash have been circulated of late, but they have been received with more or less skepticism. It is possible, however, to say from the most competent and reliable authority that these reports are correct. Official announcement of the facts will be made about the time Congress opens.

As is well known, Secretary Wilson got an appropriation of \$12,500 from Congress to undertake investigations in this country with a view to locating potash supplies that would be commercially available. For months, scientists of the Bureau of Soils have been giving attention to the matter. The result is that they have found the necessary supplies in the kelp that grows freely along the Pacific Coast. This remarkable vegetable growth, a weed that seems to spring up from the rocks along the coast, growing in the greatest luxuriance in places, is believed by the Department of Agriculture experts who have studied it to offer the solution of the potash question in this country.

While detailed figures on the supply of potash that can be had from this source are not yet obtainable, it is not questioned by the scientists that all the potash required by this country can be got from kelp without going to Germany for it.

As a matter of fact, the statements as to the supply seem so extravagant that until the positive official announcement is given out they will hardly be believed. It can be said, however, that the scientists are convinced that many million dollars' worth every year can be obtained from this source, and that without ruining the supply. It is said that kelp is found growing thickly over hundreds of square miles near the edge of the sea and that the revelations as to it have been most surprising. The percentage of potash found in it is very large. This growth is also a source of iodine. One of the questions that is being given attention in connection with kelp is how best to cut it and deal with it and at the same time not reduce the available supply. It reproduces itself yearly and hence this question, while deemed important, is not considered at all incapable of solution.

Some time ago, it was admitted at the Department of Agriculture that a source of potash had been located and that it was believed it would obviate purchase of potash from Germany, thus saving expenditure of \$12,000,000 a year abroad. But there was nothing definite as to the source. It can be said definitely that kelp is the source referred to. If the expectations of the scientists are borne out, this is likely to prove of immense importance to the users of fertilizer all over the United States.

Meantime, the Geological Survey is searching for a potash supply and has been looking over the desert areas of a number of the Rocky Mountain states, hoping to locate such a supply in association with saline deposits left by the drying up of large bodies of salty waters. JOHN SNURE.

Helpfulness

Wonder if you have considered how much has been contributed to your success and happiness by that good, faithful wife. If so, this is not intended for you, as you are already showing your appreciation by adding such conveniences and comforts to the home as will lighten her burden and make housekeeping more pleasant.

But if not, just stop a minute and consider what it means to her to have a modern range, fireless cooker, cream-separator, modern bath-room, complete laundry equipment, bread-maker, and numerous other conveniences which make housekeeping a delight.

Look through the advertising columns of FARM AND FIRESIDE for something she needs, and make her a present of it.

Getting Clover Started

I HAVE a small piece of ground here in Ohio, about one fourth of an acre. It has always been considered poor in quality, having a loose, sandy soil. I wrote to FARM AND FIRESIDE for advice about the condition, having tried twice to get it down in clover. I was advised to put it in rye in September, which I did, then plowed it under in the spring. There was a heavy crop all winter for my chickens to feed upon. In the spring, for the lack of other ground, I was obliged to plant potatoes, and between the rows of potatoes later on I put sugar-corn. The ground has rather a northern exposure. My yield in potatoes was fair. They were above average in quality, but, owing to an unusually poor season, potatoes were not up to their normal yield in this section. However, mine were much larger than those of any of my neighbors. The sugar-corn was fine. We were obliged to dig potatoes unusually early on account of a white worm getting at them, so in July my potatoes were all dug, leaving a piece of ground free from all weeds, for the potatoes had been well worked. The soil was quite loose and ready for planting something.

Then I noticed a suggestion in FARM AND FIRESIDE to sow clover after the potato crop. I asked the advice of several old farmers. Whereupon, they all shook their heads, saying "they had never seen it done—and that the usual droughts that came on at that time would most surely burn it out, or perhaps, later on, it would freeze out." But I determined to experiment; I bought the seed, had my old gardener sow it quite thick both ways. Just ten days after sowing we had a fine rain, and, owing to the recent rains, the clover has grown, flourished and made a beautiful field, much to the surprise of the old farmers. There is no danger of its freezing out. The stems are stocky and the clover is thick. MRS. L. S. EATON.

More Feed Per Acre

The cost of producing meat or milk would be much less if it required less acres to produce the feed.

Both the quantity and quality of the feed improve when the right plant foods are used to supplement the manure and clover. They improve enough to yield a handsome profit on the expenditure.

The right plant food includes enough

POTASH

in available form. Supplement the manure and phosphate with 50 to 100 pounds of Muriate of Potash, or 200 to 400 pounds of Kainit, per acre, and you will raise big corn and fine clover after the grain and at the same time improve the fertility of the soil.

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Sold Direct from Factory Complete, with Hitch Free. The only all steel tongueless disc made. Practically no chance of breakage—no repairs—no delays—no waiting for parts. Steel wheels have wide tires. Steel axle is high arched and gives good clearance. Trucks are flexible. Wheels pass over uneven places and stones without disturbing balance. Double levers—each section works independently. Adjustable holdowns insure uniform depth of cut. Disc sections do not strike together. End thrust taken up by a hard maple ring bearing. Only harrow with steel separators between blades. Hitch free to suit size of harrow.

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The FARMERS' LOBBY.

A WORD of warning that I was going to write a letter for the lobby about the potash dispute between the United States and Germany would scare every reader over onto the last page, or some other page than this. No wonder; the potash controversy has not been at any time a really exciting diversion for people interested in the lighter forms of literature. So I promise not to write about the potash controversy, and if you see a potash-mine or a German cartel or a "Kali Syndikat" sneaking its serpentine way into this story you will know that if I were St. Patrick it would never get in. I don't know any more deadly subject about which to parade any real interest among readers than this potash row. And yet it is the finest illustration I have ever seen of the ultimate out-workings of some economic and industrial tendencies of our time. Half the farmers in America, or more, have a direct interest in this potash controversy because the price of potash is reflected directly in their bills for fertilizer; everybody in America would be interested in potash if he understood to what extent the German potash syndicate is the last word that has been spoken anywhere in the world about the communistic organization of industry and the conservation of natural resources. We can all recollect how some twenty years ago our Populist friends out in the Missouri Valley demanded that the government buy up the wheat, put it in warehouses, issue certificates against it that should have practically all the functions of money, hold the wheat till the world got hungry enough to pay a good price for it, and then sell it at a dollar a bushel instead of fifty or sixty cents.

Coffee and Potash are Alike

EVERYBODY except Populists knew that such a scheme would not work, and if it did work, it would be bad. So I am going to tell you something about how two governments have adopted that same scheme, and made it work. In both cases, the German genius for organization, management and governmental administration has been responsible for developing the project and making it a success.

These two illustrations tell the whole story of how Brazil has gone Populist on the coffee question, and how Germany has done the same thing on the potash issue. In each case, the country, having discovered that it practically monopolized the world supply of an important necessary of life, has established a government monopoly in that article, and is able to dictate prices to the entire consuming world.

First, as to the coffee trust in Brazil, there is one little state, São Paulo, in Brazil, that could supply the entire world with coffee, even if it was blindfolded and had both arms tied behind it. Coffee grows down there about as alfalfa grows on irrigated land in the prospectus of the real-estate boomer. There isn't any other country in the world that has a chance with São Paulo, just as there isn't any country in the world that has a chance to compete with the United States in cotton. The Germans and the British and other people from time to time devoted a great deal of time and energy and enthusiasm to the effort to discover a new source of cotton so that they need not be entirely dependent upon American supply, but they always fail. There simply isn't anywhere on earth such a combination of soil, climate, negro labor and white management as in our southern cotton-producing states. They have tried it in the Sudan, in Egypt, in India, in Arabia and various other places, but no other country is finally able to compete with the Southern States of this Union in producing cotton.

A Big Crop of Coffee

AND that's the way with Brazil in the matter of coffee. Several years ago the coffee crop got so big and prices consequently so low, that the Brazilian growers took up the Populist idea of having the government buy it up and hold it for a good price. First the state of São Paulo tried it, but the undertaking was too big for the financial resources of one state, and then the Brazilian federal government was enlisted. The government in turn discovered that the thing couldn't be done unless some of the world's financial powers were interested in it and would furnish the money. You have perchance heard that money makes the mare go. Well, the Brazilians discovered that in connection with their proposed coffee monopoly they must have practically unlimited financial backing, and they finally

Our Coffee and Potash

By Judson C. Welliver

enlisted a syndicate of German, French, Belgium, Dutch, English and American bankers to finance the enterprise. The Brazilian government guaranteed it. The syndicate on the one side agreed to take all the coffee that was raised, to pay the growers for it, and to hold it until the world would be willing to pay a good round price for it; the government of Brazil, on the other side, agreed to enforce restrictions on the amount of coffee grown so that the syndicate should not be swamped.

The scheme has worked well on both sides. Rather too well in fact, for the Brazilians have so limited the number of trees that may be planted that in case of a bad crop year they are liable not to produce as much coffee as the world needs. That is what is happening this year, and the result is that the price of coffee has gone up in an aeroplane and the motor is working so perfectly that it does not seem likely to come down for a year or two. The Brazilian coffee-growers are doing well, doing better than ever before; the banking syndicate that finances the deal is doing splendidly, except that Attorney-General Wickersham is on its trail with a rusty old tin can in his hand and a determined purpose to attach said can to the tail of said syndicate. Mr. Wickersham believes that he has a mighty good chance to lock up the American partners and managers in the syndicate. Of course, even Mr. Wickersham is doubtful about his ability to lock up the government of Brazil or to put Germany in a federal penitentiary. The Sherman law will probably not declare a foreign war, but there is a very serious possibility that the Americans interested in the big coffee syndicate will be prosecuted for conspiracy in restraint of trade. Congress, in fact, has taken action suggesting such a course to the administration, and I learn that after long investigation the law authorities are convinced that they have a good chance to make a case. It is liable to be filed against the American representatives of the coffee syndicate early in the winter.

Uncle Sam's Expensive Habits

SO MUCH for the Brazilian scheme of repealing the law of supply and demand with reference to coffee. We used to believe the law of supply and demand was like the force of gravitation or the tendency of the earth to revolve around the sun, a very hard law to repeal. But in these days of nations backing and financing trusts we are discovering that even the law of supply and demand can at times be made to look pretty cheap and frowsy. The coffee syndicate and the potash trust have certainly put it hopelessly close to the blink. In the case of coffee it must be understood that the trust has boosted the price all over the world, but we Americans pay the biggest part of the freight because we are the greatest coffee-drinkers on earth. In fact, just about one half of the coffee grown on this planet is drunk in these U. S. A. Uncle Sam has some expensive habits, but he has the price, is a liberal spender, and probably buys more gold bricks at one time or another in this international trade than anybody else.

Now about the potash syndicate, which is as much like the coffee trust as a pea in the same pod except that it is entirely different. Potash does not grow; it is dug out of the ground. It is mostly useful in making fertilizer. The geologists don't know how it happens that the only big, first-class potash deposit in the world happened in Germany; they have quarreled about it a long time, and when I asked some of them recently they handed me a lot of elongated Greek and Latin scientific terminology that gave me a headache but absolutely no information. Anyhow, the potash is there; all of it; and we Americans must have it. We use about seventy per cent. of all the potash that is exported from Germany, paying approximately about \$10,000,000 a year for it, and the Department of Agriculture declares that if the Germans would sell it for Christian prices we would use twice as much as we do now. But the Germans say that they do not know how long the supply will last and so they are conserving their natural resources in potash by skinning us to the extreme limit of all that the traffic will possibly bear. The German potash syndicate is an organization

under government auspices. Some of the potash-mines are owned by the government, others by private capital; but they are all in the syndicate for purposes of management and the extraction of the largest possible profits. The syndicate is organized on the basis of a five-year lease of life, and a government authority apportions to each mine its annual production, fixes the price, and superintends the whole business of marketing and operation.

When the five-year period for the last syndicate expired in 1909, some of the privately owned mines hustled out and made big contracts with the American fertilizer manufacturers to supply them with potash for long periods. These contracts lopped nearly one third off the prices that had been charged theretofore, and would have been of tremendous benefit to the American users of fertilizers could they have been enforced.

But in a few days the government intervened and the old syndicate was pulled together, and then plans were set on foot to get all these contracts with Americans nullified. They were perfectly good contracts, but the Germans didn't want them carried out, and after a good deal of maneuvering the German government took the position that, unless the Americans surrendered their very favorable contracts and permitted the syndicate to be organized and to hoist up the prices some more, it, the German government, would impose an export tax on potash of twenty dollars per ton for the best grade, which would make it so expensive that the Americans could not possibly insist on their contracts being carried out.

The Final Potash Adjustment

OF COURSE, the Americans who had made their deals in good faith were perfectly red-headed when they realized what the canny Teutons were passing across to them; but the more they looked into it, the more they realized that they couldn't do a thing. You see, when a trust, in addition to being a trust, has an absolute monopoly of a natural supply and in addition to that has a first-class empire with a large army and a promising navy behind it, that trust pretty nearly has the world by the tail. The potash trust certainly did. Our government was finally enlisted in the matter and the thing was adjusted through the efforts of Mr. M. H. Davis, commercial advisor of the State Department.

The final adjustment is rather satisfactory on the whole from the American point of view. The syndicate will hereafter sell potash to this country for a trifle under \$34 a ton, muriate basis. This is not only a small reduction from the price which has been paid for some time past, but, what is more important, the same price is to be maintained for the next five years. It has been the established policy of the potash syndicate to advance the price a little every year, and the American fertilizer manufacturers have never been able to put their business on a satisfactory and permanent-priced basis as they would have liked because of policy of the syndicate. Last spring potash, muriate basis, was put at \$37.50 for a time, and it seemed probable that unless the war was settled it would very likely go as high as \$40 before long. Therefore, Mr. Davis's settlement by which potash at less than \$34 is guaranteed for the next five years looks to be a very satisfactory way out of a bad situation.

Our Hope of the Future

WRITING about this same controversy once before, I think I suggested to the lobby that if the United States cares to adopt the same method that the Germans and the Brazilians employ in the coffee and the potash syndicate and to monopolize and corner those articles which we absolutely control, such as the world's supply of cotton and copper and a large part of its grain and meat, we could make this petty little German holdup in the matter of potash look as cheap as a Hottentot at a fashionable Fifth Avenue wedding. But, of course, we don't do that sort of thing. We are so blamed smart that we just naturally know that the law of supply and demand can't be repealed; these Brazilians and Germans are just enough smarter to go ahead and repeal it, anyway.

It isn't impossible that in the near future our potash problem will be solved for us by the scientists of our own Department of Agriculture. They have been for several years hunting for a supply of mineral potash somewhere in this country, and they may find it.



Across the Dividing-Line

By Will S. Gidley

Illustrated by Edward L. Chase



MORNIN', Abner. Heard the news about Deacon Pike, your neighbor?"

"No. What's he been up to now? Somethin' mean, I reckon. 'Twouldn't be the Deacon if it wasn't."

"Come, come, Abner; don't be too hard on the Deacon. He needs all the sympathy he can get just now."

"Why, what's happened to him? Lose a nickel through a crack in the walk, or did he have to throw in a halter on his last horse-trade?"

"No, no, Abner, it's no joking matter. The Deacon is laid up sick."

"Sick?"

"Yes; flat on his back with typhoid fever."

Abner Tubbs dropped the whiffletree that he held in his hand. "Typhoid fever? Are you sure, Hiram?"

"Doctor Leonard says so, and I reckon he ought to know. Says it'll be weeks before the Deacon is out again, even if he pulls through at all."

"Bad as that, eh?"

"Yes; and, to make matters worse, his hired man, Jim Parkins, has cleared out, and left him right in the midst of the spring work. Nobody around to do anything now except that deaf-and-dumb boy the Deacon took from the asylum; and all he's good for is to tend to the chores around the barn and do the milkin'."

Pretty tough on the Deacon, I call it."

Abner hemmed. Then he stooped down and picked up the whiffletree he had dropped, turning it over and examining it as carefully as if he had never seen it before in his life. Finally he looked up. "Tough on the Deacon, eh? Goin' to get some more rain, ain't we?"

"Shouldn't wonder the way them clouds look over in the east. Reckon I'd better be joggin' along to mill before I get caught in a shower."

He gathered up the reins. "Get up, Jake! G'lang there! So-long, Abner!"

"So-long, Hi. Guess I'll get at my plowin' now."

But he didn't—not with his usual promptness, at least.

For fully fifteen minutes after his neighbor, Hiram Tanner, had driven on out of sight on his way to the grist-mill, Abner Tubbs stood, thinking of the news he had just heard.

His long-time enemy, Deacon Pike, down sick—and with a serious illness like typhoid fever at that? It seemed altogether out of character for the Deacon to be anything but boisterously well. They had been neighbors for more than twenty years, and never before had he known Deacon Pike to be laid up a day from illness.

The Deacon was an energetic, tireless worker, and had always prided himself on being a week or ten days ahead of everyone else in the neighborhood with his farm work. The thrifty and forehanded way in which he carried on his farm work was a standing challenge and incentive to all his neighbors.

Sometimes, Tubbs reflected, the Deacon was almost too thrifty in his way of doing business. He had not yet forgotten a certain horse-trade they had made a dozen years before, in which the Deacon had got considerably the best of the bargain.

That was the beginning of the unpleasantness between them. A few weeks later came the line-fence flare-up, occasioned by Deacon Pike's relaying an old wall and shoving it over a foot or more on Tubbs's land—that is, according to Tubbs's claim, although the Deacon refused to admit it, and said the wall had been heaved out of place by the frost and shoved over on him, and he was merely putting it back where it belonged.

Neither of the disputants would give in, and from that time on they had not been on speaking terms, although living and working in sight of each other on adjoining farms. Each thought the other in the wrong.

And now, Deacon Pike—Dave, as he had been wont to call him once—was at last stricken down by the only enemy to whom he had ever given in—fell disease, in the shape of a wasting fever. Right in the midst of his spring work, too! It was really too bad and—but then, what affair was it of his? He and Deacon Pike were strangers. They had not spoken in years. If that wobbly line-fence, twelve inches out of plumb, that divided them had been as high and broad as the Great Wall of China, it could not have cut them off from each other more completely.

"If he's got typhoid fever, that's his own lookout," he grumbled to himself as he finally got his team harnessed to the plow and started for the field.

The sod lot that Tubbs was breaking up was over next to the Pike place, and as he followed the plow back and forth across the field he missed something, he scarcely knew what.

But at last it came to him: it was the sight of the Deacon and the cheery boom of his big voice as he kept things moving on his side of the division-line.

His conscience didn't trouble him. Oh, no; it wasn't that. He had simply stood up and defended his own rights when he and Deacon Pike had met on the firing-line. He had nothing to take back or be sorry for—that is, nothing special—in fact, nothing at all, as he hastily assured himself.

But then, he wished the Deacon hadn't been so inconsiderate as to be taken down sick at this time. What business had he to suddenly give up his bustling, loud-voiced activities, and take to his bed with typhoid fever?

It was just time for planting corn. The Deacon had the ground all prepared, but there was nobody to go on with the work. When his long siege of sickness was ended, it would be too late for planting.

Well, for once, Deacon Pike wouldn't be able to make his usual boast that his corn crop was ahead of all his neighbors'. That would be some consolation, and yet Abner Tubbs did not seem to get much comfort out of the thought.

"What makes you so uneasy, Abner? Anything worryin' you?" inquired Mrs. Tubbs that evening, after the supper dishes had been cleared off and they were seated around the table, she with her sewing and he with his newspaper.

"Worryin'?" snapped he. "What have I got to worry about? I hain't flat on my back with typhoid fever, same as Deacon Pike, be I?"

Mrs. Tubbs dropped the garment upon which she was working.

"Why, Abner, isn't it dreadful? Where did you hear such news as that?"

"Hi Tanner told me about it when he was drivin' by on his way to mill. The Deacon is mighty sick, accordin' to Hi. Doctor says he won't be out in weeks, so Hi tells me—and there's that ten-acre corn-patch of his all furrowed and ready to plant, and no one to go ahead with it."

"Where's the hired man?"

"Got scart and skipped out, Hi said. The Deacon's spring work will be in a nice mess by the time he gets on his feet again. But, of course, it ain't none of my affairs. Twelve years ago he ordered me to keep on my own side of the dividin'-line, and—"

"And, of course, the Deacon wouldn't like it," suggested Mrs. Tubbs, "if you came over now and—offered to do anything to help along."

"Perhaps he wouldn't," growled Abner, as he rose and took his hat down from its peg alongside of the chimney. "But he's sick abed, ain't he? What has he got to say about it, and how is he goin' to help himself if I feel like goin' over there and doin' what I can to keep things movin' along till he is able to get out and tend to the work himself? Who is goin' to stop me, I'd like to know? He won't know anything about it."

"Of all the ideas! I really believe Abner means what he says about going over there," mused Mrs. Tubbs as she watched her husband go out of the door and swiftly stride away in the direction of Deacon Pike's.

It was after dark when he reached there. Mrs. Pike came to the door in answer to his knock.

"Why, it's Abner Tubbs!" she gasped.

"Yes. How is the Deacon?"

"Poorly. He's had a hard day of it. I've sent for my sister to come and help with him. Doctor says he will need the best of nursing and care."

"He is worryin' about his spring plantin', I s'pose, isn't he?"

"He was on the start, but he is too sick now to care about what is going on. Jim, our hired man, left yesterday, so the plantin' will have to go undone."

"No, it won't. I've got a patent corn-planter, and I'll come over with my man to-morrow, and we'll put in the seed on your ten-acre lot in a jiffy. Just as soon do it as not. The Deacon always got his corn crop in ahead of mine, and I'm goin' to see it is done this time."

"After the way he used you in the—the horse-trade?" stammered Mrs. Pike. "And about the line wall—and everything he's said and done?"

"Tut, tut! what difference does it make about what he may have said or done in the past? He has used me dirt mean, and I have done the same by him."

"This is only a truce at present, and what I do now don't count either way. Fact is, I don't want the Deacon to know I've done anything. You needn't tell him I've been on the place. He might think my conscience is troublin' me, or maybe I'm only doing it to aggravate him, or somethin' of that sort."

"Oh, no, he wouldn't think anything like that, I'm sure," protested Mrs. Pike.

"You can't tell. It's best not to take any chances. When he sets up again and begins askin' about who's done the plantin' and kept the work up, better blame it in a general sort of way on the neighbors. Some of the rest will turn in, I guess, and give you a lift when it is needed. But the corn-patch is my job."

"No thanks at all, Mrs. Pike. It is all right. Reckon a feller can give another a boost at a time like this if he wants to—even if they aren't twin brothers—pretty state of affairs if he can't."

"Have to be gettin' back home now. So-long, Mrs. Pike. I'll tackle that corn-planter contract the first thing in the morning."

"Good-night, Mr. Tubbs. You are very kind."

"No, I'm not! I'm jest human—that's all." And abruptly turning away, Abner Tubbs set his face homeward. As he walked rapidly along through the star-lit night, an unusual lightheartedness came over him, and as soon as he was out of hearing of the Pike residence he broke into a boyish whistle and kept it up all the rest of the way to his own gate.

It was a long, hard pull, but Deacon Pike was finally pronounced out of danger. A naturally rugged constitution and a determination to get well, aided by medical science and faithful nursing, had won the battle.

Gradually his appetite and strength returned, and each day he was allowed to sit up a little longer.

Finally, one pleasant day, when the daisies were in bloom and the fragrant breath of summer in the air, the convalescent's easy-chair was moved over to the open window to allow him to look out upon the fields to which his feet had been for weeks a stranger.

As his eager eyes took in each familiar feature of the landscape, the smile on his face suddenly gave way to a look of astonishment.

"Who planted that corn?" he demanded, straightening up and pointing to where the regular rows of growing maize could be seen stirring in [CONCLUDED ON PAGE 28].

Christmas Poems and Carols

Under the Holly-Bough

By Charles Mackay

Ye who have scorned each other,
Or injured friend or brother,
In this fast-fading year;
Ye who, by word or deed,
Have made a kind heart bleed,
Come gather here.

Let sinned against and sinning
Forget their strife's beginning,
And join in friendship now;
Be links no longer broken,
Be sweet forgiveness spoken
Under the holly-bough.

Ye who have loved each other,
Sister and friend and brother,
In this fast-fading year;
Mother and sire and child,
Young man and maiden mild,
Come gather here:

And let your hearts grow fonder,
As memory shall ponder
Each past unbroken vow.
Old loves and younger wooing
Are sweet in the renewing,
Under the holly-bough.

Ye who have nourished sadness,
Estranged from hope and gladness,
In this fast-fading year;
Ye, with o'erburdened mind,
Made aliens from your kind,
Come gather here.

Let not the useless sorrow
Pursue you night and morrow.
If e'er you hoped, hope now—
Take heart; uncloud your faces,
And join in our embraces,
Under the holly-bough.

A Christmas Song

By William Makepeace Thackeray

Come wealth or want, come good or ill,
Let young and old accept their part,
And bow before the Awful Will,
And bear it with an honest heart.
Who misses or who wins the prize,
Go, lose or conquer as you can;
But if you fail or if you rise,
Be each, pray God, a gentleman.

A gentleman, or old or young
(Bear kindly with my humble lays),
The sacred chorus first was sung
Upon the first of Christmas days.
The shepherds heard it overhead—
The joyful angels raised it then,
Glory to heaven on high, it said,
And peace on earth to gentle men.

My song, save this, is little worth:
I lay the weary pen aside,
And wish you health and love and mirth,
As fits the solemn Christmas-tide,
As fits the holy Christmas birth.
Be this, good friends, our carol still—
Be peace on earth, be peace on earth,
To men of gentle will.

The Two Spruce-Trees

Upon a mountain, side by side,
Two friendly spruces stood,
And one was tall and filled with pride—
The monarch of the wood.

The other was a lowly tree,
Not more than six feet high,
And other spruces laughed to see
It struggle toward the sky.

The monarch from his dizzy height
Would shout, "Why don't you grow?"
Alas, a tempest came one night
And laid the monarch low.

While by and by a woodsman came,
Who whistles merrily,
And gave the little spruce a name,
And called it "Christmas Tree,"

And bore it to a house of light,
Where, gaudily arrayed,
The spruce became a royal sight
By children's eyes surveyed.

And Christmas joy it brought to all,
And as the hours went by,
'Twas glad for having grown so small,
And was content to die.

Christmas Minstrelsy

By William Wordsworth

The minstrels played their Christmas
tune
To-night beneath my cottage eaves,
While smitten by a lofty moon
The encircling laurels, thick with
leaves,
Gave back a rich and dazzling gleam
That overpowered their natural green.

Through hill and valley every breeze
Had sunk to rest with folded wings;
Keen was the air, but could not freeze
Nor check the music of the strings,
So stout and hardy were the band
That scraped the chords with strenuous
hand.

And who but listened?—till was paid
Respect to every inmate's claim;
The greeting given, the music played
In honor of each household name,
Duly pronounced with lusty call,
And a Merry Christmas wished to all.

Jest 'Fore Christmas

By Eugene Field

Father calls me William; sister calls
me Will;
Mother calls me Willie, but the fellers
call me Bill.
Mighty glad I ain't a girl—ruther be
a boy,
Without them sashes, curls an' things
that's worn by Fauntleroy!
Love to chawnk green apples an' go
swimmin' in the lake—
Hate to take the castor-ile they give
for belly-ache!
'Most all the time, the whole year
'round, they ain't no flies on me,
But jest 'fore Christmas I'm as good as
I kin be!

Got a yeller dog named Sport, sick
him on the cat;
First thing she knows she doesn't know
where she's at!
Got a clipper sled, an' when us kids go
out to slide,
'Long comes the grocery cart, an' we
all hook a ride!
But sometimes when the grocery man
is worried an' cross,
He reaches at us with his whip an'
larrups up his hoss;
An' then I laff an' holler: "Oh, ye
never teched me!"
But jest 'fore Christmas I'm as good as
I kin be!

Granma says she hopes that when I
git to be a man,
I'll be a missionarier like her eldest
brother Dan,
As was et up by cannibals that lives on
Ceylon's Isle,
Where every prospect pleases an' only
man is vile;
But Granma she has never been to
see a Wild-West show,
Nor read the life of Daniel Boone, or
else, I guess, she'd know
That Buff'lo Bill and cowboys is good
enough for me!
But jest 'fore Christmas I'm as good as
I kin be!

An' then old Sport he hangs around as
solemn like an' still,
His eyes, them seem a-sayin': "What's
the matter, Little Bill?"
The old cat sneaks down off her perch
an' wonders what's become
Of them two enemies of hern that use
to make things hum!
But I'm so polite and ten' so earnestly
to biz,
That Mother says to Father: "How
improved our Willie is!"
But Father, havin' been a boy himself,
suspicious me
When jest 'fore Christmas I'm as good
as I kin be!"

For Christmas, with its lots and lots of
candy, cakes and toys,
Was made, they say, for proper kids,
and not for naughty boys;
So wash yer face and brush your hair
an' mind your p's and q's,
An' don't bust out your pantaloon an'
don't wear out yer shoes;
Say "yessum" to the ladies and "yes-
sur" to the men,
An' when there's company, don't pass
your plate for pie again;
But thinkin' of the things yer'd like to
see upon that tree,
Jest 'fore Christmas be as good as yer
kin be!

Christmas Eve A Carol of Carols

By Stephen Chalmers

The hoar of Time where the frost's
gray rime
In fantastic glamour lies;
A sheen of light on the gleaming white
That mirrors the spangled skies;
A great cold star in the heavens afar
And a moon-trail on the hills;
The earth instilled with an awe ful-
filled
And the night with music thrilled.

The carolers sing as the church bells
ring,
While up in the organ loft
The sage owls croon as the calm, sweet
tune
Comes, swelling, but ever soft.
The message flies through the chang-
ing skies,
By changing time and tongue,
But ever the same as the tale that
came
The shepherd men among.

Where the mistletoe and the laurel
bough
And the holly and bay are twined,
Where the hearth-fire gleams as in an-
cient dreams,
One age is but in mind.
As in modern dreams the hearth-fire
gleams,
So, under the casement still,
The carolers sing as the tower tongues
swing
Man's Peace and God's Good-will.

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SPRINGFIELD, OHIO

The Road to Happiness

A Story of the Common Lot

By Adelaide Stedman

Author of "Poor Relations," "Miracle," "Intellectual Miss Clarendon," Etc.

Part III.—Chapter VI.

URING the three days since the broken engagement, while Frances was undergoing the accumulative disasters which had so suddenly descended upon her, Norman was no less miserable.

The afternoon of the quarrel, blindly, unhearing, almost unseeing, force of habit led him along the familiar road to his office; force of habit made him hang hat and coat on the accustomed hook, then settle down at his desk, but there its power ceased. His mind seemed stunned. The awful unexpectedness of the blow dazed him.

At half-past six Mr. West, the head clerk, put his head in at the door to ask if he should come back to lock up, but Norman merely made a negative motion, much as he would subconsciously have waved away an annoying fly, and Mr. West withdrew.

This head clerk was a thin little man, though well built and with regular features, but in his grave moments no one ever noticed anything about him except his all-pervading air of meekness. The way his thin silky mustache drooped was meek; his hair, parted in the middle and laying perfectly flat on his head, was meek; the clear pale blue of his eyes, never lit by gleam or spark, was meek; his straight little nose was meek; his quiet footfalls and noiseless manners were superlatively meek.

He invariably irritated people until he smiled, which fortunately was very often. Then there always came over his face a sort of glow and brightness from within which was surprisingly attractive. Everyone who came to Norman's office knew about "little West's smile" and loved to call it into play.

He was at his meekest when he spoke to Norman that evening, and his self-distrust prevented speech. However, he saw his employer's face, grim, square-jawed, white. Twice before he had seen it so, once when Mr. Norris had failed to win an important suit, and again when the telegram had come announcing his father's death; and it frightened him.

In his mind, Mr. Norris was the greatest of men and unsuspected; he brooded over him and watched his moods with the unchanging affection of which such a man is capable. Therefore, Norman's look spoiled his dinner and made him so uncomfortable afterward that at eleven o'clock he went back to the office. From the street below he could see the lights still burning in the familiar windows, so he plodded up the seven flights of stairs, all elevators having long since stopped.

Once in the office, however, he did not know how to proceed. To boldly walk in and state his anxiety to Mr. Norris was to him an impossibility. He rattled his keys jinglingly, hoping to attract attention, but without results. He began to be alarmed, but dared not knock at the communicating door between him and his idol. So for several minutes he stood with his hand on the knob, then an inspiration seemed to strike him. With a sweep of his arm, he knocked a ponderous law book which was lying on his desk onto the floor. It fell with a heavy, resounding crash.

The ruse succeeded. Abruptly the noise of someone rising was heard, then Norman threw open the door.

"You, West?" he exclaimed in a tone that demanded a reason for the clerk's presence at that late hour.

"I—I beg pardon," the little man stammered, terribly uneasy, "but, in passing, I noticed the lights, and as you were working—so late—I thought I might be of some assistance, so—"

Norman was startled and dazed. He had been going over the interview of the afternoon again and again with painstaking analysis; but always into his truest judgment had come Frances gay, Frances loving; Frances wheedling and coaxing and smiling bewitchingly; and the door had to be shut on such visions before he could see again what he felt was the real Frances, the Frances who had played with his love like a pretty toy, then thrown it aside when her interest waned; the Frances who had seemed incapable of deep, true feeling.

So he only half comprehended what Mr. West was saying, and looked in evident bewilderment from him to the heavy book on the floor.

His subordinate followed the line of his eyes, nervously explaining:

"I—threw it down."

Norman gradually recovered his faculties, and with them came the irritating sense of being watched.

"I won't need you to-night," he said a little shortly, "thank you, just the same."

The clerk saw that Norman was still grim and white, but he bowed meekly and was half-way to the door before he plucked up courage to say,

"I hope you are not troubled about anything, sir?"

"Yes, I am." The words came reluctantly with no hint of further revelations, but Norman never lied, not even about little things.

"I was afraid so," Mr. West went on. "You—forgot your dinner, sir."

"I'm going home now, I'm tired." His voice was still sharp with annoyance, but the wave of relief which passed over the little man's face at his words was so touching in its evidence of fidelity, that his temper passed, and he added more gently, "I guess I need a guardian, West."

In response to his tone, the clerk's luminous smile appeared, and somehow Norman felt comforted by it. Suddenly he dreaded being alone again and going back to his bitterness.

"Come with me and have a bite to eat," he suggested to the smile more than to West; and it beamed a response as the little man replied,

"I'd like to, Mr. Norris. Thank you, sir."

The whole incident was seemingly trivial and barren of results except that Norman's gloom was momentarily lightened. However, to Mr. West it loomed large. For the first time he had interfered in his employer's affairs with what was for him dizzying success. This fact remained proudly in memory; and later the insignificant little episode was to bear amazing fruit.

With the morning of the next day came, first, Frances's mistaken telephone message which left Norman shaken and questioning as her strained voice died away. Could he be mistaken? Did she care after all? For several hours such thoughts recurred to him during the intervals of business, and each time they produced more effect.

Then he met Jacob Jordan at the institution where they both banked, and that gentleman did not fail to tell him that he had danced with his "charming fiancée" at the Harcourt ball and had "found her gaiety positively infectious, Norman, positively infectious."

After that Norman's questionings ceased. Granting that the "infectious gaiety" had been the product of Mr. Jordan's malice, the bald fact remained that Frances had gone to a ball, had danced and indulged in small talk, while he had sat in his office, a prey to black despair.

Keen and analytical, his great success as a lawyer had been won by his wonderful pleas based solely on the unanswerable logic of facts. Not with eloquent oratory, sensational methods or legal quibbling, but with cold facts, had he beaten opponents, convinced juries, won judges. What a man thought and felt rarely entered his arguments. What he said and did counted. Now Norman tried to conduct his love affair on the same principles. His intellect outargued his heart, and his very strength as a lawyer was his weakness as a man. Hearts, however, have a way of not being easily beaten, and his was no exception. When news of the Taylor catastrophe was noised abroad, the old tender love leaped up again with a force that proved it had never died. The desire to go to Frances almost overmastered him, but always doubt held him back by mocking, "she doesn't want you!"

Her loss of riches scarcely occurred to him then. Her father had disappeared. That alone mattered. Conjecture as to the whole affair ran high, and finally rumors reached his ears that Mr. Taylor had intended to use him financially, but he assumed the one, fine, big attitude of which Frances and her mother had never dreamed. He utterly disbelieved such foundationless reports. Without proof, why should he doubt a friend?

Reporters tormented him; officious friends offered curious sympathy; but he refused himself to everyone. To talk would have meant to tell of his broken engagement and he had decided with a strange sense of satisfaction that the announcement must come from Frances.

He slipped in and out of his office by side doors, catching glimpses of poor little West besieged by press men he had not the courage to resist. However, absolute loyalty kept him mute.

When the afternoon of the third day came around and still there was no news of the missing man, his endurance suddenly gave out. The newspaper bulletin boards with their wild guesses and sensational headlines seemed to jeer at him. He would learn something definite. He would find out the facts!

This decision once made, the strain lessened. He knew immediately to whom to go; so at four o'clock he jumped into a taxi, giving Miss Sandford's address. She was the connecting link between him and Frances, but how close a one he never suspected; for while he was riding toward her home, Frances arrived there.

The telephone call which had inspired her and her mother with so much dread, had turned out to be the friendliest and most sympathetic of summonses. Caroline's voice had answered the girl's tremulous "hello," and her voice had only been the prelude to her presence.

With her had come some semblance of order, and without Mrs. Taylor or Frances having known exactly how it was accomplished she had prevailed upon the wife to hire detectives to hunt for the missing man, domestic tangles had been straightened out, and finally she had carried off the two women to her home until their affairs were straightened out, well knowing that the expense of maintaining their establishment had to be stopped and at once.

[CONTINUED ON PAGE 28]



Fun for Christmas Week

Frolics for Our Girls and Boys

By Mary Dawson

A Star Social

A STAR Party or Social is a delightful way to entertain at Christmas-tide, and one which young girls can easily arrange and give themselves. Pretty star shapes are easy to cut, and decorations, amusements and supper should be starry in the extreme.

The bright-colored wrappers that come with soap and other groceries will yield a wealth of tiny stars with which to decorate the notes of invitation, and others can be used like wafers to seal the flaps of the envelopes.

Over the doorway, as guests enter the festive room, have a big star made of holly or any greens which are available. If the Yule-tide greenery is in place at the time, suggest the occasion further by swinging from it stars made of cardboard covered with red, or gold, or silver paper. For this the bright-colored wrappers will serve, if it cannot be purchased by the sheet.

For one frolic of the evening give each of the young people a square of white paper, and provide several pairs of scissors. Each player is required to cut out a star with his or her eyes closed, and the man or girl whose effort is considered best wins a prize. This might be a jar of home-made cookies cut out in star shape.

In another round send each one to the blackboard, there to write either a quotation about the stars or some interesting fact concerning the bright little heavenly bodies. All those who succeed in qualifying for it draw for a prize, which might be a blotter cut out in the shape of a star, having the cover of white cardboard or birch-bark, with a spray of holly painted on it. This little gift can be made easily and quickly at home.

Another interesting plan is for the hostess to read aloud some famous poem on the stars or some particular star, omitting all the nouns. These name words the company is required to supply (writing them down on paper or cards provided for the purpose) in the order in which they come. Campbell's "Song to the Evening Star" and Leyden's "To the Evening Star," or other poems of equal appropriateness, are included in every household book of poetry. The player who names most of the missing nouns wins a pincushion in the form of a star.

For an active game I can heartily recommend the fun of a starry target. This is where a rather large star shape is cut from black paper muslin or other very dark material and is attached to a curtain or simply to the folding doors or the wall. Three rubber balls are needed, and a pan of flour or powdered chalk. The idea is to hit the target with the balls after rolling them in the chalk or flour, each successful shot leaving unquestionable proof of its scoring on the black goods. The fun of the game lies in the fact that the men must throw with their left hands, while the girls use their right hands. Another amusing way to arrange it, is to have each man choose a girl as his partner, when, by the rules of the game, they have three shots between them. Two of these are made by the girl in every case, and one by the man. Both sexes, in this last version, play with the right hand. The couple making highest score wins the prize, while those who are least skilful must write out or recite "Twinkle, twinkle, little star," or perform some other ludicrous penance enjoined by the entertainer.

Have the refreshment or the supper which follows the games as starry as possible. Make little star-shaped mats of silver and gilt (or of red paper) to go under the dishes, and have candle-shades decorated with a double border of wee astral shapes to correspond in color with the rest of the table-trimmings. The star-shaped cutters for shaping cookies (of which every country kitchen boasts at least one) are splendid for cutting out dainty sandwiches as well as for their original purpose; for there should be star-shaped cookies a-plenty. Hot chocolate and star sandwiches, with home-made water ice and starry cookies, would make a nice refreshment where a regular supper is not desired.

Mrs. Santa Claus

Usually a girl will have whipped up simple gifts or souvenirs for her friends, to be distributed in Christmas season. This distribution can be made the occasion of much fun in the hands of a bright girl. For instance, she may invite all those to be remembered on a certain date "To Meet Santa Claus." Santa is not on the scene when the company arrives, but the hostess explains that she "expects him any minute." Surely enough, although all those looked for are already present, a loud peal of the door-bell is heard soon afterwards, followed by a jingle of sleigh-bells. A stout little woman, wearing a costume trimmed with ermine (raw cotton), bustles into the room, carrying a large sack.

She introduces herself in a comic speech, explaining that she is Santa's better half. On account of its being Santa's rush season, the good old man is obliged to turn over some of his visits to her, she explains, and she hopes her excuses will be accepted for the exchange.

She then proceeds to open the sack, which proves to contain some trifle, however small, for each person present. This is presented with some funny little personality which is designed to amuse the onlookers as well as the recipient. Matrimonial predictions and fortunes for the new year will accompany many of the gifts, and any sly little hits which Mrs. Santa can work in without making herself in the least offensive.

If the hostess herself must play Mrs. Santa, she should wait to see the conversational ball rolling merrily and then slip away to don her costume. If possible, it is better to have Mrs. Santa distinct from the girl who is to welcome the guests. If a thin maiden is cast for the former important rôle, she must pad herself into rotundity, as Mrs. Santa, like her more celebrated spouse, is a round, roly-poly little personage.

A Snow Frolic

All that is really necessary in order to get up a most effective snow-scene is a bundle of cotton batting and some silver dust, and with such a basis a specially novel little snow entertainment can be given.

Write the notes of invitation on blue-white note-paper or cards and invite your friends "to the Court of the Frost King." This will give a hint of the nature of the frolic, for which the parlor must be appropriately decorated.

Bank the corners of the room with branches of pine and cedar, and amid the green tuck handfuls of white cotton sprinkled with the dazzling dust. Have more cotton-batting snow along the bookcases, window-sills, mantelpiece, and on the top of such doors as will stand open during the fun.

Devote one table to a Klondike, in which tiny gifts or souvenirs for all of the company are buried. These can be the simplest of home-made articles and remembrances, including gingerbread men and other edibles of humorous suggestion. Fortunes written in rhyme and illustrated with figures, cut out of advertisement pictures, are equally good for the purpose. Enclose the remembrances in little white packages or envelopes and bury them in a tall mound of white cotton on the table. Conduct each guest in turn to the Klondike, give him or her an ordinary steel fork and directions to dig until something is turned up. The treasure found in the snow-pile belongs to the person who unearthed it.

In another round distribute strips of pasteboard to each couple, the men having chosen partners for the game, and ask each couple to write down, in the five minutes which elapses between bell-signals, as many words of frosty suggestion as can be thought of. Pencils accompany the cardboard strips. The idea of the contest is that the man writes the words while the girl dictates them. The girl may not in any way assist her partner with his share of the task, and the man is not permitted to write any terms that occur to him and not to his fair assistant. Such terms as "Boreas, North Pole, Icy, Blizzard, Snowflake, Ice-Cream, Chiblain," are examples of the frosty words. Give big cotton snowballs with little gifts tucked away at the center to both of those who participated in making the longest list.

For a Snow Social on this order the refreshments should, if possible, be carried out appropriately. For instance, sandwiches, whatever the filling, can be wrapped in white tissue paper. Let them make their appearance in a covered dish, the top of which is concealed by raw cotton. The cover is lifted away at the proper moment, carrying the raw cotton with it, so that none of the tiny threads fall upon the refectory. Creamed chicken smothered in the creamy-white sauce can be served in little white paper cases made of cardboard and tissue paper. If chocolate is the chosen beverage, cover each cup with stiffly whipped cream, and with the ice-cream serve dainty white cakes which (while the icing that covers them is warm) have been rolled in fresh shredded cocoanut.

A Candy Search

Girls who make good candy of any kind, from peanut-brittle and fudge up to candied fruits and bonbons, could begin a Christmas party with a Candy Search. The small squares or balls are wrapped in portions of clean paraffin paper, and are hidden around the room in which the company will be received, well in advance of the first arrivals. A man and girl who have previously elected to act as partners in the search receive a paper bag between them, in which to collect spoils. These bags are preferably of dainty crepe paper folded double and fringed at the ends. When the bell rings, all the couples begin to search, continuing until all the sugar plums have been collected. There is no prize; but better than this, each couple may draw their chairs together and enjoy the edible booty. Follow this with some of the time-honored Christmas games—charades, snapdragon, consequences, etc.—which are always specially jolly and mirthful in their true season.

The charades may be given in the usual way, by acting out words divided up into syllables, the entire word to be guessed by those acting as audience. It is also diverting to found them on book-titles or the names of famous songs. In this case each word is charaded instead of each syllable.

"Follow My Leader" would make another hilarious number for the program, and would be especially picturesque if indulged in while the company is still in improvised costume from the charades. Give the person who is to act as leader (whether man or girl) a tall wand having a big bunch of holly tied to the top with scarlet crepe. Holding this aloft, he or she leads the company on a merry revel through all the rooms that can be opened to them. Whatever the leader does or says, the company must imitate. If he dances or sings, so do they. If he leaps over obstacles or crawls under them, so must everybody. The fun continues until both the Lord of Misrule and his followers are powerless to go on from want of breath and laughter.

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Quaint Design in Peasant Lace

By Emma L. H. Rowe

THE design here shown is of Fayal drawn-work lace. This lace is usually made in strips (lengths of insertion) for trimming waists, gowns and sometimes in set lengths suitable for collar and cuff bands.

The material used must be firm and compact in weave, with warp and woof threads of even diameter. Very closely woven lawn, muslin or linen is used for waist-bandings; also for trimming ultra-fine bed-linens—pillow-cases, etc.

It is a design and kind of lace that may be very effectively used for bed-squares of canvas or scrim, or for drawn-work curtains.

The scallop of buttonholing, which invariably borders this drawn-work insertion, is attractive in itself and at the same time adds a most unusual finishing touch.

The design, while decorative, requires for its execution only one kind of stitch, and that a simple one.

Indeed, the work is far from difficult. It is divided into four sections. (I.) Drawing the threads to form the little squares. (II.) Over-lacing with needle and thread the outlined squares, for strength as well as beauty. (III.) Making the design by darning or interlacing with needle and thread. (IV.) Adding the finishing touch—the scallop of buttonholing.

In the working detail shown the work has been done loosely, in order to show more clearly each step. Ordinarily, however, it should be firmly and tightly worked.

If the material to be drawn contains any dressing (and most material does), it must be washed to remove the sizing, dried and pressed.

I. The threads must be carefully counted during the drawing process; this is perhaps the most tedious part of the work. Six warp threads are pulled and three left, six pulled and three left, and so on, until twenty-nine square spaces are made. Then the woof threads, the short cross-threads, must be carefully counted, cut and pulled; six threads pulled, three threads left, to form perfect squares with the warp threads. It is scarcely necessary to emphasize care in the counting, cutting and pulling of the

parallel threads have been made. The interlacing and alternating of the threads make a figure 8, which is, of course, not distinguishable when the twelve threads are forced into one small square.

Where a succession of filled squares come together (say two, or three, or four), the needle is put under and over, under and over, under and over their entire length, before working backwards.

In working from one finished square to a new square, the thread can always be slipped invisibly through a section or two, or the thread may be twisted around an intervening bar. Sometimes a thirteenth stitch is necessary to bring the needle down or across to the next desired square.

If smaller squares are desired, only four threads need be drawn and two left, instead of six and three. In this case, the squares may be filled with only eight alternating threads instead of twelve.

The rule is that the filling threads must number twice as many as the pulled threads.

IV. The button-hole scallop, always finishing the sides and many times the ends of the insertion, is more pointed than rounding. Each scallop should measure two squares in length and one square in height. These scallops are not only very decorative in effect, but they also answer the purpose of covering up and

successfully concealing the cut threads and tiny stitches made along the edges of the material during the drawing of threads and the overlacing of the bars.

Where drawn-work on lawn or linen is too fine work for the eyes to endure, heavy canvas or some of the coarse art fabrics may be substituted, and very effective work accomplished. A sofa-cushion or table-runner, bordered or centered with the design here shown, would be most attractive and yet would entail neither eye-strain nor close application.

NOTE—In the first picture the top needle shows the interlacing of four successive squares. The needle on the left shows the buttonholing. The needle at the bottom right shows the over-lacing stitch.

No patterns or designs are sold for this lace-work. A cross-stitch pattern does nicely.

Children's Hour

By Pearl Chenoweth

A FARMER'S busy wife said to me, "I do not teach my children anything. I don't have time." This, coming from a woman I had long known, was a surprising confession, for she is a woman of intelligence, and previous to her marriage had been a teacher. Her husband is prosperous.

Everything on the farm is kept in good condition, and their bank-account grows apace. My friend's flock of two hundred White Leghorns receive her personal supervision and the very best of care; and, although she openly confesses that she has no time to teach her children, I know that they are kept clean, well fed, and well dressed.

I have been trying to persuade this woman to institute "The Children's Hour." It should be done in every home. Suppose that some of the important work must be left undone! I would rather leave my children a hallowed memory than anything else in the world.

"Between the dark and the daylight" may have been the best time for the poet's hour with the children, but the ordinary hard-working mother should choose a morning or an early afternoon hour and devote it to the children every day of every week of every year. This will be a time for confidences, for sweet fellowship, for reading aloud. If you would have your children know the best in literature, read it to them. Select the best! Folk-lore stories and the old myths and fables have belonged to the children of the world for many generations, and are the rightful heritage of every child.

By all means establish "The Children's Hour" in your home.



Working detail, showing motifs of design



Peasant lace makes a very effective trimming for a shirt-waist cuff

threads, as this is the first essential of successful drawn-work, and is known by the veriest novice.

II. The over-lacing of the threads forming the squares is very simple. The work must be held securely in an embroidery-frame—set of two hoops. Hold the work perpendicularly in front of you; with needle and thread (a shade coarser than threads drawn) work from right to left, always under each bar of three threads. Work down one row to the end, catching in the material with tiny running stitches over to the next row of small squares. Then work up this row, always working from right to left, under each bar, drawing the thread taut. The entire over-lacing or strengthening of the bars must be done before the design is begun.

III. The design is worked sectionally; that is, each length of border is made, without any connection with the central figures. The design is made simply of interlacing stitches, twelve to each small square. The needle slips under one thread and over the next, alternating on parallel rows like darning. Where only one square is to be filled, as shown in completed band and working detail, the needle is put under the top bar and over the lower bar of the square, under the same lower bar and up over the top bar—back and forth in this one square until twelve

Our Own Puzzle School

Conducted by Sam Loyd

Investment Puzzle

THE Smiths were purchasing a suburban villa, when Smith remarked:

"If you give me three quarters of your money, I can just take the \$5,000 house, and you will have enough left to buy the shady grove and running stream."

"No, no," replied his better half, "give me only two thirds of your money, and I will buy the house, and you will have enough over to purchase the grove with the babbling brook."

Can you figure out the value of the shady grove with its never-failing stream?

Drovers' Puzzle

Three Texas drovers met on the highway and proceeded to dicker as follows: Says Hank to Jim: "I'll give you six pigs for a hoss; then you'll have twice as many critters in your drove as I will have in mine." Says Duke to Hank: "I'll give you fourteen sheep for a hoss; then you'll have three times as many critters as I." Says Jim to Duke: "I'll give you four cows for a hoss; then you'll have six times as many critters as I." From these facts can you tell just how many animals there were in the three droves?

Odd and Even

Here is a pretty way of telling in which hand a person holds an odd or even number of coins, which, if well understood by the performer, so that he can vary the same, may be shown very effectively.

Tell a person to hold an even number of coins in one hand, an odd number in the other, and you will find out which hand holds the odd number.

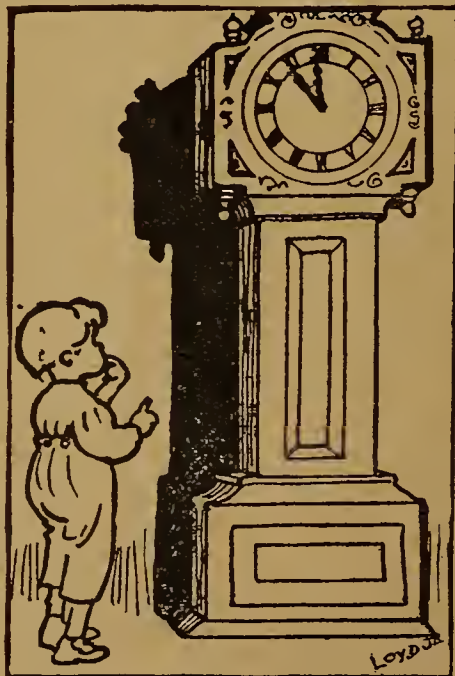
You tell him to multiply the number in his right hand by any odd number, and to multiply the number in his left hand by any even number, and tell you how much the two products added together amount to. You may now go into some hocus-pocus calculation or explanation regarding the figures mentioned, which will mystify him, but all you need to note is whether the sum mentioned is odd or even, as it tells whether the sum in his right hand is odd or even. If he said 792, you know that he holds an even number of coins in his right hand. If he should say 551, his right hand holds an odd number, and as a matter of course the left hand holds the reverse.

By changing the order, and sometimes telling him to multiply the number in his left hand by an odd number, which would reverse your reply, you can conceal the trick. Another way is to say, "Take an odd number of coins in one hand, an even number in the other. Now treble the number in the right hand and double the quantity in the left, and tell me how many there would be."

Puzzling Time

"Tommy, what time is it?" called mother. "I can't tell the hands apart," replied Tommy. "It may be a little to eleven or it may be a little more than five minutes to twelve," answered Tommy.

Mother came to look for herself and found that the correct time was about eleven o'clock, but that Tommy was really not quite so stupid as he appeared, for the hands had reached points on the dial of the clock where they might have changed positions and still told a correct time.

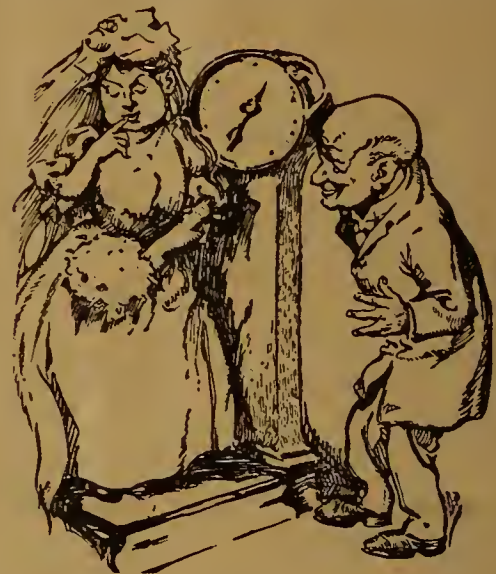


Can you tell exactly what that other time would be if the hour and minute hands were to change places?

Worth Their Weight in Gold

Old Moneybags let it be known that he would endow his daughters with their weight in gold, so they were speedily suited with suitable suitors. They were all married on the same day, and before weighing they partook of some exceedingly heavy wedding-cake, which made the grooms very light-hearted.

Collectively, the brides weighed three hundred and ninety-six pounds, but Nellie weighed ten pounds more than Kitty, and Minnie weighed ten pounds more than



Nellie. One of the bridegrooms, John Brown, weighed just as much as his bride, while William Jones weighed half again as much as his bride, and Charles Robinson twice as much as his bride. The brides and grooms together weighed half a ton. But you need not bother about the weights of the brides, for the puzzle for you to solve is to tell the full names of the several brides after the wedding.

The Canals on Mars

Here is a map of the newly discovered waterways in our nearest neighbor planet, Mars. See if you can make a tour of all the towns and back to point of beginning without going through any one spot twice.



Commence at the south pole from the letter T, spell a complete sentence, using each letter once.

This puzzle will help you pass a few spare moments.

A Rebus

My first is possessed by the Queen.
May Providence long smile upon her.
My next at her court may be seen
By those whom she chooses to honor.
My whole, 'tis admitted by all, kind reader,
In learning and literature stands as a leader.

Horse-Trade Puzzle

For some reason or other I never was much of a success as a horse-trader. I bought a broncho down in Texas for \$26, and after paying for his keep for a while sold him for \$60. That looked like a profitable deal. Nevertheless, I found that I had lost just half of the original price and one quarter of the cost of keep.

Can you figure out just how much I lost on the deal?

Cattle Puzzle

See if you can work out this cattle puzzle:

Farmer Jones sold a pair of cows for \$210. On one he made ten per cent. and on the other he lost ten per cent., cleaning up just five per cent. on his transaction. What did the cows originally cost him?

Answers to puzzles will be given in the next number of FARM AND FIRESIDE.

Sensible Clothes for Children

With Patterns Which Mother Will Find Easy to Use

Designs by Miss Gould



No. 1379—Girl's Dress
Buttoned in Front

Pattern cut for 6, 8, 10 and 12 year sizes. Quantity of material required for medium size, or 8 years, four and one-half yards of twenty-four-inch material, or three yards of thirty-six-inch material. The price of this pattern is ten cents. It is a good model for school wear when developed in blue serge and trimmed with blue bone buttons



No. 1076—School Apron
with Pockets

Cut for 4, 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, four and one-half yards of twenty-seven-inch material, or three and three-fourths yards of thirty-six-inch material. The price of this pattern for a practical school apron which entirely covers the school dress is only ten cents



No. 1685—Girl's Under-
waist and Drawers

Cut for 2, 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, two and one-fourth yards of twenty-four-inch material, or one and one-half yards of thirty-six-inch. Price of this pattern is ten cents



No. 1687—Girl's Tucked
Nightgown

Cut for 6, 8, 10 and 12 year sizes. Material required for medium size, or 8 years, four and three-fourths yards of twenty-four-inch material. The price of this practical and easy-to-use nightgown pattern is only ten cents



No. 1442—Double-Breasted
Coat

Pattern cut for 4, 6, 8 and 10 year sizes. Quantity of material required for medium size, or 6 years, three and three-eighths yards of thirty-six-inch material, or two and one-eighth yards of forty-four-inch material. The price of this pattern is ten cents. For a little girl's winter coat this is an especially good design and a very easy coat to make



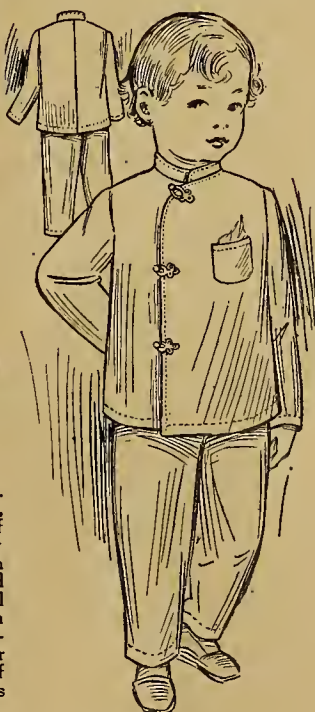
No. 1635—Double-Breasted
Overcoat

Pattern cut for 4, 6, 8, 10 and 12 year sizes. Quantity of material required for medium size, or 8 years, three and one-half yards of thirty-six-inch material, or two and one-half yards of fifty-four-inch material. The price of this pattern is ten cents. It makes a serviceable overcoat for every-day wear if made of kersey or a rough mixture



No. 1838—Russian Suit
with Pockets

Cut for 2, 4 and 6 year sizes. Material required for four years, four and one-half yards of twenty-four-inch material, or three yards of thirty-six-inch material. It is always a good plan to include in the small boy's winter outfit a plain Russian suit. It is not only serviceable for playtime, but for school as well. The price of this pattern is only ten cents



No. 1441—Boy's Pajamas

Pattern cut for 2, 4, 6, 8, 10 and 12 year sizes. Quantity of material required for medium size, or 6 years, three and one-half yards of twenty-seven-inch material, or two and one-eighth yards of thirty-six-inch material. The price of this pattern is ten cents. For winter wear outing flannel is a good material for pajamas



No. 1444—Child's Night-Drawers

Pattern cut for 2, 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, four and three-eighths yards of twenty-seven-inch material, or three yards of thirty-six-inch material. The price of this pattern is ten cents. These are just the kind of night-drawers a little boy will want for cold winter nights

No. 1885—Panel Dress
with Guimpe

Cut for 2, 4 and 6 year sizes. Material for 4 years, one and seven-eighths yards of thirty-six-inch material, with five eighths of a yard of contrasting material for panels, and one and one-half yards of thirty-six-inch material for the high-neck guimpe. Price of pattern for this child's dress is ten cents



No. 1803—Boy's Sailor
Suit

Pattern cut for 4, 6, 8, 10 and 12 year sizes. Quantity of material required for 8 years, four yards of twenty-seven-inch material, or two and three-fourths yards of thirty-six-inch material, with three eighths of a yard of contrasting material. The price of this pattern is ten cents. No boy's outfit is complete without a sailor suit. This is an especially good and practical one



No. 863—Boy's Overcoat
with Pockets

Pattern cut for 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, three and one-half yards of thirty-six-inch material, or two and one-half yards of fifty-four-inch material, with three eighths of a yard of velvet for collar. The price of this pattern is ten cents. It is a good single-breasted model

THOUGH the holidays are always busy times, it seems almost impossible to have them pass by without the extra burden of making new school clothes for the children. The clothes they began the school term with are worn out by Christmas, or need freshening up. Illustrated on this page are a number of practical clothes for both little girls and small boys. They suggest several remodeling possibilities and are excellent designs for new clothes. The best part about them is, however, that for each one you can get a practical, inexpensive WOMAN'S HOME COMPANION pattern, and every woman who has ever used one of these patterns knows that they are just the right ones for the busy housewife and mother. They cost but ten cents each and may be ordered from any of the three following pattern-depots: Pattern Department, FARM AND FIRESIDE, 381 Fourth Avenue, New York; Pattern Department, FARM AND FIRESIDE, Springfield, Ohio; Pattern Department, FARM AND FIRESIDE, 1538 California Street, Denver, Colorado. Send your order to the depot nearest your home to facilitate the quick delivery of your patterns.

The fall catalogue of WOMAN'S HOME COMPANION patterns may also be ordered from these pattern-depots.

Woman's Home Companion Patterns

YOU will surely want to have your children's clothes right in style, and yet you will want them to be practical clothes. For this reason you will want to make them from WOMAN'S HOME COMPANION patterns, because they are the patterns that are accurately cut and graded, plainly lettered and notched, are easy to put together, are simple in design, and yet possess a distinct style which characterizes them as smart. For all these reasons you will be interested in

Our Special Premium Offer

To any FARM AND FIRESIDE reader who sends us one new subscription to FARM AND FIRESIDE, at the special club price of thirty-five cents, we will give, as a premium for the subscription, any one WOMAN'S HOME COMPANION pattern. Send the subscription to FARM AND FIRESIDE, Springfield, Ohio.

simplicity should be the keynote of the small school-girl's outfit, and simplicity is cleverly combined with style in the dresses and the coat shown on this page. Pattern No. 1442 is an excellent model for a winter coat which can be used for dress-up occasions as well as for school. Serge, cheviot and rough mixtures are good materials for it. The buttons should be plain bone ones. The school dress; pattern No. 1379, and the apron, pattern No. 1076, are simple garments to make, and so is the more dressy frock, pattern No. 1885. The underwear patterns are dainty and in good style. Of course, little brother is quite as important as little sister, and for this reason half of the designs shown on this page are for him. There are two good overcoat models which look well in rough mixtures, there is a Russian blouse suit for him if he is very small, and a nice, manly sailor suit for him if he is getting to be quite a man himself. There are also patterns for night-drawers and pajamas. In fact, almost every need of the little school boy or girl is filled in the designs shown on this page.

A WOMAN'S HOME COMPANION pattern can be ordered for each of the designs here illustrated from the nearest of our three pattern-depots

OUR YOUNG FOLKS' DEPARTMENT

Cousin Sally Wishes a Merry Christmas to All

Cousin Sally's Letter

DEAR COUSINS:
A Merry Christmas to every one of you! And I hope you'll get for Christmas those things that you want most of all. But Christmas isn't all getting; it's giving, too, isn't it? I mean by this that in other ways, besides giving gifts, try to be unselfish. If a box comes to your house, marked "For Mary and Betty," and in it are two lovely hair ribbons, how about giving Betty the blue one, even if you would rather have it than the red one?

And if the two sleds that come on Christmas morning are not just alike, and your brother wants the one with the dog's head painted on it, wouldn't it surprise him if you were to say, "Take the dog's-head sled, Jim. I like you so much I'd rather you took the nicer one." Wouldn't it surprise him? Try it, cousins! And never, never allow yourselves to feel that anyone gave brother or sister nicer things than you got!

Be sure to get a lot of play into Christmas week. I'm sure my mail will be filled with letters telling me of your sleigh-rides, skating parties, Christmas parties, candy-pulls, church entertainments, Sunday-school and Christian Endeavor sociables. My! what jolly times you're going to have next week!

And thanks so much for the Christmas post-cards you sent me. If I should print the names of the cousins who remembered me at Christmas with post-cards, there would be room for little else on this page. Your Cousin Sally does appreciate your thoughtfulness. It's so good to know that you all wish me A MERRY CHRISTMAS!

I wish I could just take a peep at your Christmas trees and gifts next Monday morning, but as I can't do that, I'll just have to wait for the letters that I know will come, telling me all about it.

So I'll close my letter, just as I started it—A Merry Christmas and a Happy New Year to all my cousins from,

Your affectionate, COUSIN SALLY.

The Mischievous Stocking

By Elizabeth Patterson

"HURRAH for some fun!" cried a mischievous stocking.

And then, in a way that was really quite shocking, It wiggled and waggled and pulled at its toe, Till a wee little hole began swiftly to grow; Then it laughed "Ha! ha! ha! how my mistress will scold When this little pig goes to market a-cold."

But nobody saw it, and so by the grate The mischievous stocking was hung with its mate, While Santa Claus drove with all speed thro' the night To fill up the stockings for children's delight, And at midnight—the clocks were just on the stroke— Came the faithful old friend of the dear little folk.

And oh! such a lot of good things as he carried: Two dolls gaily dressed, just about to be married. He took from his pack a ring and a muff, Books, games and a sled, and with playthings enough; There were roller-skates, too—and last, but not least, The candy and fruit for a holiday feast.

He looked at the stockings—"This never will do. Old Hole-in-the-Toe, I have nothing for you!" But he plumped out the other, and filled up a chair, While the mischievous stocking looked black with despair. And murmured as Santa Claus left it behind, "There isn't much fun when one's naughty, I find."

Cousin Sally's Idea for Cousins Wishing to Correspond

OUR list of cousins wishing to correspond is becoming so long that I've had to think up a new way to manage it. This is the new way:

If a cousin in Idaho wishes to receive post-cards from New Mexico, California and Maine, for instance, he will write to me, telling me what states he chooses to hear from. Then I'll send him a letter with several names and addresses from each of the states mentioned. I shall be careful, too, to see that everyone has a chance at having post-cards sent him. It will go in rotation and in turn.

I think that will be much better than publishing the names, each time, as our lists are too long and somebody always gets pushed off at the end, and then he's sorry, and, to be sure, so am I.



The Santa Claus of the Rural Delivery

The Santa of the Rural Delivery

By Cousin Sally

YOU may talk as you please, the girls and boys in the country know there is a Santa Claus. Haven't you all seen him coming up the snowy road, early on Christmas morning? You see, he comes later in the country than in the city.

He has a bright red nose, red cheeks, a fur cap, just like all the Santa Claus pictures ever printed or painted.

Sometimes he's slim and sometimes he's fat. But he always wears a huge overcoat and warm gloves. He used to wear a red coat, trimmed with white fur, and high-top boots. But they've gone quite out of fashion, now, for Santa Clauses.

There's a story to the effect that he formerly rode in a sleigh drawn by reindeer. But I suppose reindeer are too slow for America, and too useless the rest of the year. We want an animal that can pull Santa Claus' sleigh or wagon on December 24th, but who won't back out of helping with the spring plowing, too.

Oh, yes, we've changed our ideas quite a bit since the old days. They tell us that Santa Claus was in the habit of coming down the chimneys, in order to distribute the gifts. Well, patent stoves and hot-air furnaces put a stop to all that.

Nowadays we leave our bedroom windows open far enough for any Santa Claus, slim or stout. But he's changed his plans and doesn't seem to care about coming into our houses at all.

Boys and girls still hang up their stockings and go to bed secure in the thought that they'll be filled in the morning. And the custom of hanging Christmas wreaths in the windows and a bunch of mistletoe in the hall is as closely followed now as it was a hundred years ago.

You see our hearts haven't changed, only some of our notions. We have changed the maps in our school geographies; we have changed the kind of books boys and girls read and study; we have changed our schools till folks of fifty years ago wouldn't recognize them. But boys and girls are much the same as in the long ago.

Oh! things have changed in more ways than one since our fathers and mothers were boys and girls. It's a good thing for us that they haven't changed the blessed old customs of presents, Christmas trees, candies, turkey and hot mince pies on December 25th. It would be hard lines for us if they did!

But there's still a Santa Claus—in the country, at least! You can see him driving slowly up the road, stopping here and there, to leave gifts and good wishes.

We've changed his name—that's all! It isn't Santa Claus nowadays—but just "The Rural Mail-Carrier!"

And when he arrives next Monday morning, and you greet him in the road, he'll understand if you say:

"Good-morning, Santa Claus!"

Our New Contest

LISTEN, girls and boys! Here's something I want you all to read, and think over, and then do!

I want you to make *Five New Year's Resolutions*. And they must be resolutions that you're honestly going to live up to all the year. They mustn't be pretty sentences that look well and don't mean anything.

Well, this is to be a contest—with prizes—only just a little different. You are to write to me, on one side of the paper only, these *Five New Year's Resolutions*. If you can express each resolution in ten words, do so; anyhow, make them as short as possible. However, the length of the resolution isn't the important thing—it's the living up to them.

Send them to me, with your full name and address. That's not so hard, either! But listen! Live up to them all the year!

And on January 5, 1913, I expect to publish a page of them, and then you'll see how you lived up to your promises.

Each set of resolutions has a chance to win a prize—five prizes, all alike, for girls, and five for boys—ten in all, and all first prizes.

Now think about this during Christmas week. And be sure to write only those things which you are willing to do—all the year. Be sure that the resolutions come to me on or before December 30, 1911. Address them to Cousin Sally, Care Department of Good Resolutions, FARM AND FIRESIDE, Springfield, Ohio.

Some Cousin Sally Riddles

Sent Her by Kindly Cousins

WHAT is it a man is always wishing to have, yet always trying to be rid of? When was beef the highest?

Why is a field of grass like a person older than yourself?

The answers to these riddles will be published next issue. Be sure to send me all the good riddles that you can find. They'll be printed on our page every once in a while.

Answers to Puzzles

WE WERE all so busy with Christmas gifts on December 9th that the puzzle answers had to wait over until this issue. Here are the answers to puzzles published in the issue of November 25th. I hope you have guessed them, anyhow, and really don't need the answers. But here they are:

Answers to Geographical Puzzle

1, James Green; 2, Negro; 3, Shetland; 4, Maine; 5, George White; 6, Virginia; 7, Salmon; 8, Yellow; 9, Hood; 10, Red; 11, Leghorn or Milan; 12, Rainy; 13, Snake; 14, Fear; 15, Little Rock; 16, Turkey; 17, Pekin; 18, Table; 19, Sandwich; 20, Baker; 21, Orange; 22, Milk; 23, Cork; 24, Greece; 25, Salt; 26, Horn.

Answers to Hidden-Bird Puzzle

1, swallow; 2, catbird; 3, rail; 4, redstart; 5, towhee; 6, sandpiper; 7, warbler; 8, king-bird; 9, hawk; 10, dove.

Winter-Time

By Robert Louis Stevenson

LATE lies the wintry sun a-bed,
A frosty, fiery sleepy-head;
Blinks but an hour or two; and then,
A blood-red orange, sets again.

Before the stars have left the skies,
At morning in the dark I rise;
And shivering in my nakedness,
By the cold candle, bathe and dress.

Close by the jolly fire I sit
To warm my frozen bones a bit;
Or with a reindeer-sled, explore
The colder countries round the door.

When to go out, my nurse doth wrap
Me in my comforter and cap;
The cold wind burns my face, and blows
Its frosty pepper up my nose.

Black are my steps on silver sod,
Thick blows my frosty breath abroad;
And trees, and house, and hill, and lake,
Are frosted like a wedding-cake.

Hail and Farewell

THE next time that you read this page, girls and boys, you will see, at the top of it, the New Year, 1912. And here, in this tiny corner of our own page, I want to say to you, and with you, the words which end our page and the year, and, at the same time, begin a new year, full of promise: "Farewell 1911 and Hail 1912."

And a Very Happy New Year to All!

The Christmas Sermon

By the Rev. Eliot White

THE word "sermon" is good enough in itself, but it has certainly been tied up to a lot of unpleasant associations. It usually suggests a preachment in prosy tone, by one who continually "talks down" to his defenseless listeners.

The writer of this Christmas sermon, therefore, feels some diffidence in offering it. But he asks his readers to go back with him to the original word, "sermo," a "discourse," and try, for the time, to forget the suggestions of constraint and "preachifying" which the derived word brings with it.

Even the word "Christmas" itself has come to arouse unpleasant suggestions for some people. It has fallen from grace for them, and, instead of tingling with an electric atmosphere of good cheer and generosity, its sound falls on them most depressingly. "Oh, goodness!" they exclaim, "Christmas is nearly here again, and I've got to think up what I can give this one and that one; and then there's the shopping and the bother of sewing and pasting, and tying up bundles and writing cards, and the expense, and the cross postmen and expressmen, and my headache, and mercy knows what other troubles! Actually, the time between Christmases gets shorter every year!"

They are like the tantalizing host in the Arabian Nights story, who spread a table with handsome but empty dishes, and whose guests, when they sat down at his invitation, with good appetite, found his showy hospitality a cruel farce. The one who was most injured by such mock generosity was the host himself; his guests departed, with only physical hunger and thirst, but he by his grim parody upon hospitality starved his very soul. It is the same with Christmas givers of mere things. They grudgingly pass around among their alleged friends at the happy season empty plates, in the form of "presents," with never a morsel of affection's food or drink to grace them. Is it any wonder that they themselves are worse starved, in their inner natures, than those who receive their meaningless offerings?

Perhaps some time also there will be introduced into our calendar a festival day, or better a whole week, that may be called "Earth-mas." This would take rank as a greater celebration than Thanksgiving Day. The latter would always keep its place, but it is not sufficient to express our immeasurable obligation to the earth on which we dwell, as in its own lavish and untiring way the Giver of Itself to mankind. In all the rich and varied products it brings forth, the earth yet bestows on us more than these alone—it instills a health, a magnetism and a vigor that can only be adequately expressed by declaring that it is thereby transmitting its innermost being.

And the very name "Christmas." Is not that a stimulating discourse or "sermo" all by itself? Yes, all the sordidness and striving for display that degrade some modern celebrations of Christmas cannot obscure the eternal meaning of His birthday who, of all who ever lived, most gladly and unreservedly gave Himself.

I feel sure that it would be helpful, in trying to win the full meaning of our Christmas celebration, to remember at this time some of the other great givers of self, besides that greatest one of all, Jesus Christ. As a practical suggestion, suppose someone in each family should spend a morning before Christmas Day, in the public library, or if that is not available, the same time with a dictionary or biography, and select twenty or thirty names of those men and women who have wrought great benefit to the race, adding to each name chosen a brief account of the service which he or she rendered. Then, on Christmas Day, while the candles still burn on the tree, and the excitement of giving out the presents is over, let this splendid roll of honor be read aloud, of the world's benefactors, all of whom, in the same spirit which perfectly filled Christ for whom the day is named, gave themselves in their service and achievement for their fellow men.

Nearly everyone, in making out such a list as I have described, would find it difficult to keep within the bounds of twenty or thirty names. I should want my roll, at any rate, to include the following as shining exemplars of the Christmas spirit: Moses, Buddha, Socrates, Cornelia, Mary of Nazareth, John the Baptist, John the Apostle, Paul of Tarsus, Francis of Assisi, Catherine of Siena, Joan of Arc, Michelangelo, Savonarola, Columbus, Luther, Washington, Robert and Elizabeth Browning, Susan Anthony, John Brown, Lincoln, Darwin, Pasteur, Emerson, Walt Whitman, Edward Carpenter, Bellamy, Stevenson and Tolstoy.

Does not the perusal of even such an incomplete list as this justify the claim that the essence of giving lies in the bestowal of self, not primarily in things given, be they never so costly and magnificent? All through the ages between the careers of Moses and Tolstoy, for example, who happen to stand at the beginning and end of my list, have not kings and queens, lords and barons, and the "wealthy" folk of all nations, been giving one another "presents," often so expensive that a single one of these might surpass in coarse money value the worldly property of all the members of this roster-roll added together? And yet how many of such costly material gifts do we know anything about to-day? There is a Taj Mahal, a Koh-i-noor diamond and a few gems, some necklaces, palaces, parks, and the like, but we have to rack our memories to make up even a brief catalogue.

Finally, then, what shall be our response to this, the sun's way, the earth's way, the great soul's way throughout history, up to Christ's and God's own way, of communicating themselves in and through all their specific gifts? If this supreme custom is to be ours as well, we shall hear its stirring call here and now, at Christmastide, and do our part to clear away the stains of commercialism and sordidness that still defile this wonderful festival. And resolve that we will, henceforth, call nothing that goes forth from us to others by the name of "gift," but that which verily conveys with it something of OURSELVES.

A Christmas Thought

By Phillips Brooks

THE earth has grown old with its burden of care,
But at Christmas it always is young;
The heart of the jewel burns lustrous and fair,
And its soul full of music breaks forth on the air,
When the song of the angels is sung.

It is coming, Old Earth, it is coming to-night!
On the snowflakes which cover thy sod
The feet of the Christ-Child fall gentle and white,
And the voice of the Christ-Child tells out with delight
That mankind are the children of God.

Something For The Whole Family

IF YOU will get the January AMERICAN MAGAZINE and read it, you will have a good time. We promise you a treat, with full knowledge that we are guaranteeing a lot, but with complete assurance that we can make good.

THE AMERICAN MAGAZINE is published by the publishers of FARM AND FIRESIDE. We want you to know about it. We think that when you do know about it, you will want it in the family. It belongs in your family. It is a great and beautiful periodical—full of new facts and ideas, and responsive to the romance and wonder of life.

WE DO not believe, for example, that in a quarter of a century such a Christmas piece has been written as that contributed to "The Interpreter's House" in the January AMERICAN MAGAZINE. The man who wrote that piece has rare understanding of the human heart. Several have suggested that it ought to be read aloud in every home in our country. It would be a fine thing for you to do some evening soon.

IN THIS same January number there is an extraordinary and stirring report of a movement on foot in Europe to get the small boys of all nations into a new world-wide organization, the main object of which is to end war. This movement is succeeding. It has spread over five European countries. It is traveling toward America. The newspapers will soon be full of it. It is a wonderful new idea, one of those flashes of genius that move the world forward with a sort of jump. We all know that once you get the young to feel what you might call the "peace instinct," once you develop in the race instinctive contempt for international slaughter, the thing will be done. It looks as if the man of talent and attraction has come to lead the way. He has got the youngsters warming up to the idea by tens upon tens of thousands. They have a definite, active, practical part in the plan. They will carry into manhood a lasting prejudice against war. THE AMERICAN MAGAZINE brings to our country the first authoritative report of this movement. It comes straight from the inside, brought by one of the great national journalists on our staff.

THE space allotted to this announcement is already used up, and we have not spoken of a dozen—literally a dozen—important features in the January AMERICAN MAGAZINE. Think of having to omit telling you of "Bob" La Follette's own story of his sensational meeting in a Milwaukee hotel with Philetus Sawyer, the famous old standpat Wisconsin Senator of a generation ago! Think of omitting to tell you fully about Ida M. Tarbell's article, Edna Ferber's story, Arnold Bennett's story, "Abe Martin's" wonderful fooling, and all the other splendid things!

We repeat our first paragraph in this column, and advise you to get the January AMERICAN MAGAZINE.

15 cents on all news-stands

\$1.50 by the year

THE AMERICAN MAGAZINE

The Crowell Publishing Company

Springfield, Ohio

(or 381 Fourth Avenue, New York City)

Get a Watch and Fob

Boys:

Here is a chance to obtain a handsome and useful watch, and a fine leather fob with a gilt metal charm engraved with **your own initial letter** without cost. FARM AND FIRESIDE guarantees you satisfaction.

DESCRIPTION: This watch has a handsome nickel case, with open face. It is a stem-wind and a stem-set, just like other high-priced watches. It has a close-fitted snap back. It is only $\frac{3}{8}$ inch in thickness. It is a perfect timekeeper, tested and regulated before leaving the factory. It is engraved front and back, and is a watch of which anyone would be proud.

The Fob is of handsome black leather with a polished buckle, like illustration, with a rich gilt charm engraved with **your own initial**.



MOVEMENT: Regular 16 size. Lantern pinion (smallest made). American lever escapement, polished spring. Weight, complete, with case, 3 ounces. Quick train, 240 beats to the minute. Short wind, runs 30 to 36 hours with one winding.

Every watch is fully guaranteed by the manufacturers and by FARM AND FIRESIDE. The manufacturers will make all repairs for a year free, as explained on the guarantee.

How to Get the Watch

You can get this dandy watch and fob very easily. Write a postal-card to the Watch Man. Tell him you want to get this watch and fob without spending one penny. He will be glad to help you get your watch. This is a chance you must not overlook.

Thousands of delighted boys have secured their watches this way with the help of the Watch Man. You can do it, too. Any boy that really wants one can easily get this fine watch. But how will the Watch Man know about you if you don't tell him?

Write a Postal To-Day to **THE WATCH MAN**

FARM AND FIRESIDE, Springfield, Ohio

Do You Want to Be Well Dressed?

IF YOU DO, the best way to accomplish it is to use **WOMAN'S HOME COMPANION** patterns in making your clothes. Aside from being inexpensive, easy-to-use patterns, they are the sort of patterns that give a distinct air of smartness and up-to-date-ness to the garments cut from them.

They can be quickly delivered to you if you will only send your order to the Pattern Depot nearest your home. The patterns cost ten cents, and the pattern depots are: **Pattern Department, Farm and Fireside, 381 Fourth Ave., New York; Pattern Department, Farm and Fireside, Springfield, Ohio, and Pattern Department, Farm and Fireside, 1538 California St., Denver, Colo.**



Fortune-Telling Post-Cards

In Sets of Twelve

A DIFFERENT card for each month in the year, showing the birthstone, the sign of the zodiac and a brief horoscope—witches, owls, crescent moons, black cats and all of the Fortune-Teller's paraphernalia. With these cards you can have loads of fun telling the fortunes of your friends. Tell them their lucky and unlucky months and days. You can tell them more about their characteristics than they know themselves.

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FARM AND FIRESIDE
Springfield, Ohio

THE GIFT CLUB

Jean West

Secretary



Christmas

Greetings!

A MERRY, Merry Christmas to all the members of our Gift Club! Christmas, this year, will bring more joy and gladness than ever before to a great many girls and women in America—just because The Gift Club was organized two months ago. Until they became members of The Gift Club these very girls had no idea that there possibly could be a plan by which they could get Christmas presents for all the family without spending a penny! But now! I just wish you could see the big pile of letters on my desk, every one of them telling me about a Christmas that will be made happier and brighter because of The Gift Club!

Here is just one letter that I picked out at random:

DEAR MISS WEST—

First of all, I want to thank you for letting me join The Gift Club. I suppose that I am a great many years older than most of the members. But I am just as interested in the Club as anyone could be. It has certainly helped me solve a great big problem—my Christmas presents! Miss West, perhaps you are one of the fortunate people who do not have to scrimp and save and plan for your Christmas-giving, and so you may not know what a real godsend the Club has been to me! That beautiful ermine scarf and muff is for my little Bessie; the knitted skating cap is for John; the fountain-pen is for my brother in the city, and the handbag is for his wife. And all these things seem like gifts to me. I did so little work for them!

Mrs. C. J., Indiana.

There! Isn't that a splendid letter? And it is just as this happy club member says—the "work" that you have to do to get all these beautiful gifts is so slight that it seems like nothing at all.

Here in my office I have a great big cupboard that is crowded to overflowing with gifts for our Club girls. Do you want to peep in while I hold open the door? See, here in this box I keep all the silver. The teaspoons are so pretty, I think. They are designed from the Rosalie pattern that is so much used in New York. Yes, the knives, forks and tablespoons match the teaspoons—they are all Rosalie patterns. And this pickle fork was made especially to match the other table silver. A butter-knife and sugar-shell? Here they are, and just as dainty and attractive as they can be, too. The child's three-piece set—knife, fork and spoon—is a favorite of mine. The flat French-gray-finish is so charming.

What is that standing back there in the corner? A vacuum cleaner! It is a wonderful machine, that cleaner, and such fun to use it and watch it eat up the dust! Yes, indeed, that is one of The Gift Club's presents to its members.

Up there on the shelf are our linens. Just let me show you this beautiful damask table-cloth and the fringed napkins to match. These pure linen doilies are just the thing to go with the table-cloth and napkins. And you can't help but like these artistic Nottingham lace curtains!

This little gilt clock is one of the very nicest things in our cupboard, I think. And our girls think so, too, judging from the way they are ordering it.

Jewelry, did you say? Just look here! Aren't they quite the prettiest rings you ever saw? This one with the two pearls I like particularly. But a great many of our girls prefer the birthday ring! They tell me what month they were born in, you know, and I send them their own particular ring. Here is something that I know has delighted our girls—an exquisite locket and chain. See, in the heart-shaped locket which is set with a sparkling brilliant there is a place for

two pictures. And here are brooches and bracelets and, oh, ever so many things besides!

You really should have the Irish lace coat-set to wear with your winter suit. It will "dress it up" wonderfully. It is *real* Irish, you know.

Have I tired you, showing you the treasures of our gift cupboard, or would you like to see a few more? You will admire this silver toilet-set. Any girl would be proud to have that comb, brush and mirror on her dresser. And here is a manicure-set and a shell hair-set and—but what is the use? I can't begin to show you *all* the wonderful gifts that are stored up in that roomy cupboard for our girls. My office looks like Santa-Claus-land most of the time. Whenever a club girl expresses a desire for any special gift, I promptly add that to our list of good things and tell her how she can claim it. It's lots of fun, this rummaging around choosing this thing and rejecting that, buying a beautiful bit of jewelry here, a piece of china there, and all sorts of attractive and useful presents both for yourself and your home. And you may be sure that our girls enjoy the fruits of my search quite as much as I do.

I have a special gift of my own that I want to send to every girl and woman who joins The Gift Club this month. It is an exquisite reproduction of a very beautiful water-color painting—a Venetian scene full of the light and color and charm of that fascinating corner of the world. You will love the brilliant, flaunting red of the sails, the vivid blue of the

sea and sky and the dazzling whiteness of the leaning tower.

This beautiful painting looks so much like the original that it is very hard indeed to tell them apart. It will be a charming picture for your parlor or living-room. Remember that this picture is in addition to all the other gifts that you may receive



"The Leaning Tower of San Castello." This beautiful picture will be sent to every Farm and Fireside reader who joins The Gift Club this month.

from the Club—just a little "extra" from the secretary. Don't you think such an offer is worth investigating? You see how easy it is to find out all about the Club, without in any way committing yourself. I hope I shall have a long and urgent letter from every girl reading FARM AND FIRESIDE. And, if you do decide to join us, my picture gift will be such a material proof of the good things that I have in store for you, that we'll be firm friends ever after, and work together as friends should, shoulder to shoulder.

And now about joining. I know that you are wondering what are the rules and regulations and requirements—the usual "three R's" of a club. In this Club of ours there are no rules at all—absolutely none. There are no dues nor expenses. There is no age limit. Any girl, young or old, married or unmarried, who wishes to earn beautiful gifts for herself, her home and her friends is eligible for membership. The work? I cannot tell you about that here. There is too much to tell, but I shall be very glad to write you a personal letter and explain everything very definitely. You will be under no obligations at all. If you do not care for our plans, you need not follow them. But I know that you will like the Club, and that is why I am so eager to tell you all about it. Just a line on a postal card will bring a prompt reply.

Do write me at once. Don't put it off.

Jean West

Secretary, The Gift Club,
FARM AND FIRESIDE, Springfield, Ohio.

Household Department

A Page of Helpful Hints and Practical Recipes



LEAN DAIRY UTENSILS—Just to know what cleanliness is—the absence of all germs—one should visit a hospital, an up-to-date dairy, a sanitary canning factory or a hotel that makes its boast of purity of food. Some people in the dairy business would open their eyes very wide if they knew that perfect cleanliness, such as is necessary in keeping dairy utensils in order, is not to be obtained by washing the things in lukewarm dish-water, and rinsing them in cold water afterward, or perhaps drying them in a cloth that has done service on all the dishes and is damp and unpleasant to the touch.

Many housewives whom their neighbors term "pizen neat" are guilty of the most filthy practices in caring for their dairy-things, yet they would be highly indignant if anyone ventured to mention the fact. One milk customer who happened into the kitchen, and saw the dairy things given a bath in the greasy dish-water, remonstrated with the woman who sold milk, and suggested that such proceedings would result in impure milk for the babies depending upon that cow for their daily food. Whereupon the owner of the cow grew angry, and said her vessels were clean enough for the king and she would thank people to attend to their own affairs. In fact, the mother of that infant was attending to her own affairs when she objected to yellow soap and greasy dish-water in the milk-pail, and she speedily sought another place to buy milk.

Dish-water is never fit for the milk things, nor is the dish-rag. It sounds strange to say that what is good enough for the dishes is not good enough for the dairy things, but it is a fact that the odors from the various meats and vegetables, combined with the soap and then with the milk, make a mixture hardly to be desired. If you don't believe this, wash a frying-pan used for potatoes in the dish-water and then follow it with a kettle or two and a pan used for fried fish before putting in the milk-pails. It will be readily seen that those pails are unfit for milk, even though rinsed with cold or warm water and set aside till milking-time. Milk-vessels should be washed with a clean cloth in a clean pan, in clean, hot water made soapy with a good powder or a pure soap, and then they should be thoroughly and completely scalded and turned upside down in the hot sun. A clean brush should be used to look after the seams, if there are any, and never, never should this task be trusted to hired men or to children, except in cases of extreme necessity.

The strainers also should be germless if clean milk and butter are to be produced. Many housewives follow the plan of having several dozen strainer-cloths and using them but once, then rinsing in cold water, drying and putting in the regular wash. On wash-day these cloths are washed and boiled, so there is no possibility of getting them contaminated in any way. The milk is poured from the clean pail through the clean cloth, and is received in a clean separator pan for the task of separating the cream from the milk.

The separator deserves much attention and should be cleansed as soon as the milk goes through it. Every manufacturer of separators claims that his particular make is the easiest to keep clean; but it takes a clean housewife back of any separator to produce good cream. Some women sell cream that sours in twenty-four hours, while others under exactly the same circumstances give their customers cream that keeps sweet from three to five days and often even longer. In plain English, the cream that spoils has gone through unclean utensils,

while the sweet cream has had no chance to become filled with germs. Dirt in cream or in milk sours it, and that is the only thing to be said on the subject.

It takes vigilance and patience and a real interest in the work to keep the dairy things free from germs, but it is being done by busy housekeepers all over the land. And one of these days those clean housekeepers will rise up and demand a better price for their cream and butter than is paid to the unclean people, and they will get it, too. The consumer is willing to pay extra for cleanliness and very soon there will be grades of prices just as there are grades of dairy produce, and the clean dairy utensils will be worth more money than they are at present.

HILDA RICHMOND.

SHIPPING CANNED FRUIT—Having had twenty years' experience in packing canned fruit to be shipped by rail several hundred miles and never having lost a jar, my method may be useful to others. First, find a good, strong barrel—a sugar-barrel will hold sixty quart jars, a flour or apple barrel about forty, and a top layer of jelly jars may be added in either sized barrel. Next, get plenty of hay or straw ready for packing. Have your jars wrapped in newspaper and labeled. Fold a newspaper in half and tear across the center, this gives a sheet a few inches longer than the jar, and just wide enough to roll it in neatly. Turn over the top and bottom, and fold tightly, and paste a label across the center of the jar, which will hold the wrapper securely in place. Put a good mat of straw in the bottom of the barrel, and place your jars in upright, leaving space between each one for the packing. Stuff the packing in firmly around the outside of the jars next to the barrel and then between each jar. Then put a layer of packing in on top of the jars, and place the next lot in position. Proceed as before. You will be able to get in three layers of quart jars and one of jelly-glasses. The packing must be very thoroughly done to insure success. To "head up," knock off the upper hoop, place head in position, and replace the hoop; also, there is a narrow binding hoop that must be tacked around the head on the inside of the barrel. Nail on your shipping-tag correctly addressed, add by freight or express and the railroad or express company's initials, mark very plainly "Glass," and your fruit will go anywhere on earth.

C. D. H.

THREE POULTICES, AND HOW TO MAKE THEM—To make a mustard poultice that will be effective, yet not blister, mix freshly ground mustard with the white of an egg. Use enough of the mustard so that the poultice will spread easily. If a poultice of less strength is desired, use one-third part of flour and two-thirds parts of mustard.

A spice poultice may be prepared from equal parts of allspice, pepper, ginger and cinnamon. If used for a small child, substitute flour for ginger.

To make a flaxseed poultice, put a teaspoonful of flaxseed-meal in a saucer, and pour into it a little hot water. Stir it slowly, mixing it well, and adding more water as it thickens. Continue stirring for ten or fifteen minutes. It is surprising how much water it will absorb. Made in this fashion, the poultice stays moist for many hours.

MRS. C. K. TURNER.

POTATO PUFFS—One cupful of cold mashed potato, one egg, one cupful of sweet milk, one teaspoonful of baking-powder; mix the egg and milk with the potato, and add enough flour to make a dough; roll, and cut into cakes, and fry like doughnuts.

COAL OIL will make the worst tarnish on silver or brass vanish, and the article looks like new.

To REMOVE THE ODOR FROM THE HANDS after cleaning fish, rub them in damp salt.

HEAT LEMONS before squeezing them; nearly double the amount of juice may then be extracted.

To TOUGHEN CLOTHES-PINS—When you buy new clothes-pins, boil them in salt water, and it will toughen them, and keep them from splitting.
LILA F. DORSON.

CUSTARD FRITTERS—Mix five well-beaten eggs, one-half cupful of sugar, one-half cupful of cream and one cupful of milk. Strain into a mold or small bowl, and set in pan of boiling water reaching half-way up the sides of bowl. Steam very gently until set (about twenty minutes), then place on ice until cold. Cut into fritters about one and one-half inches long by one inch square, dip into batter, and fry a light brown. Sprinkle with sugar, and serve.

CREAM FRITTERS—Mix one and one-half cupfuls of flour with one cupful of milk, add three well-beaten eggs, one teaspoonful of salt, a little grated nutmeg and one cupful of cream. Fry in hot cooking-oil. Some chopped apple or other fruit may be added if liked.

CORN FRITTERS—These may be made with either fresh or canned corn. To one pint of corn add the well-beaten yolks of two eggs, two teaspoonfuls of salt, one cupful of flour and one teaspoonful of baking-powder sifted together and, lastly, the stiffly beaten whites of the eggs. Drop in spoonfuls into deep hot oil, and fry.

GINGER FRITTERS—Put one pint of water, one tablespoonful of butter and one-half cupful of sugar into a saucepan, and when it boils, stir in one pint of sifted flour, stirring briskly until smooth. Remove from the fire, and when nearly cold, beat in four eggs, one at a time, and beating well between each, then add one cupful of preserved ginger, chopped fine. Fry brown in boiling hot oil, and serve with a sauce made from the ginger syrup and flavored with lemon-juice.

PEACH FRITTERS—Use either canned or fresh peaches, peeled and cut in halves. Dip each half, after draining thoroughly, into pâte-à-chou or other batter, and fry. Or the peaches may be chopped and mixed into the ordinary batter and dropped by spoonfuls into the hot oil.
ELMA IONA LOCKE.

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The Housewife's Letter-Box

Questions Asked

Will someone please tell me—

How to can pumpkin? MRS. H. H., Ohio.

How to prevent patent leather from cracking? B. S., Missouri.

How to use rosin for taking pin-feathers off ducks? Is it the same kind of rosin that is used in place of sealing-wax? A. R., Ohio.

How to make portières of old silks and what I should use for the warp? I. W., Kansas.

How to knit zigzag or fence-row stitch used so much in knitting sweaters? Also, how to reduce flesh in a safe and harmless way? M. J. C., Iowa.

How to make potato-yeast and how to use it in bread-making? MRS. R. B. F., New Hampshire.

Where I can get seed for sweet peppers? Mine always grow the hot kind, though I have bought from several dealers. This is especially referred to Mrs. F. C. of California. B. C. J., Missouri.

How to clean the lime sediment from the inside of a tea-kettle? A. M. H., Arizona.

How to make a lemon sponge-cake with yellow icing?

How to can beef at home in cans, so that it will keep in warm weather? MRS. R. J. S., Ohio.

How to make nut salad? M. J. C., Ohio.

How to make a sliced-sweet-potato pie? R. V. A., Virginia.

How to grate lemon-peel and what kind of grater to use? N. A., Indiana.

How to heat large quantities of water on an alcohol or oil stove? SUBSCRIBER, Georgia.

How to can mushrooms? MRS. B., Arkansas.

Is there a substitute for grape-leaves in pickling? What causes green-tomato pickles to toughen with cooking? MRS. C. E., Washington.

Do You Need Help?

Have you been looking for a special recipe for years? Do you need any information on household matters? And do you meet with little problems in the home that you wish someone would solve for you—someone who has had a little more experience than you? Then, why not make use of YOUR OWN department and ask the questions which have been troubling you? This department has proved that the spirit of helpfulness is abroad in the land, especially among the women of the farm. That our readers have the mutual desire to help one another is evidenced by the large and prompt response we have had to the questions which are printed here monthly. There is no payment made for contributions to these columns. All answers and queries should be addressed to "The Housewife's Letter-Box," care of Farm and Fireside, Springfield, Ohio.

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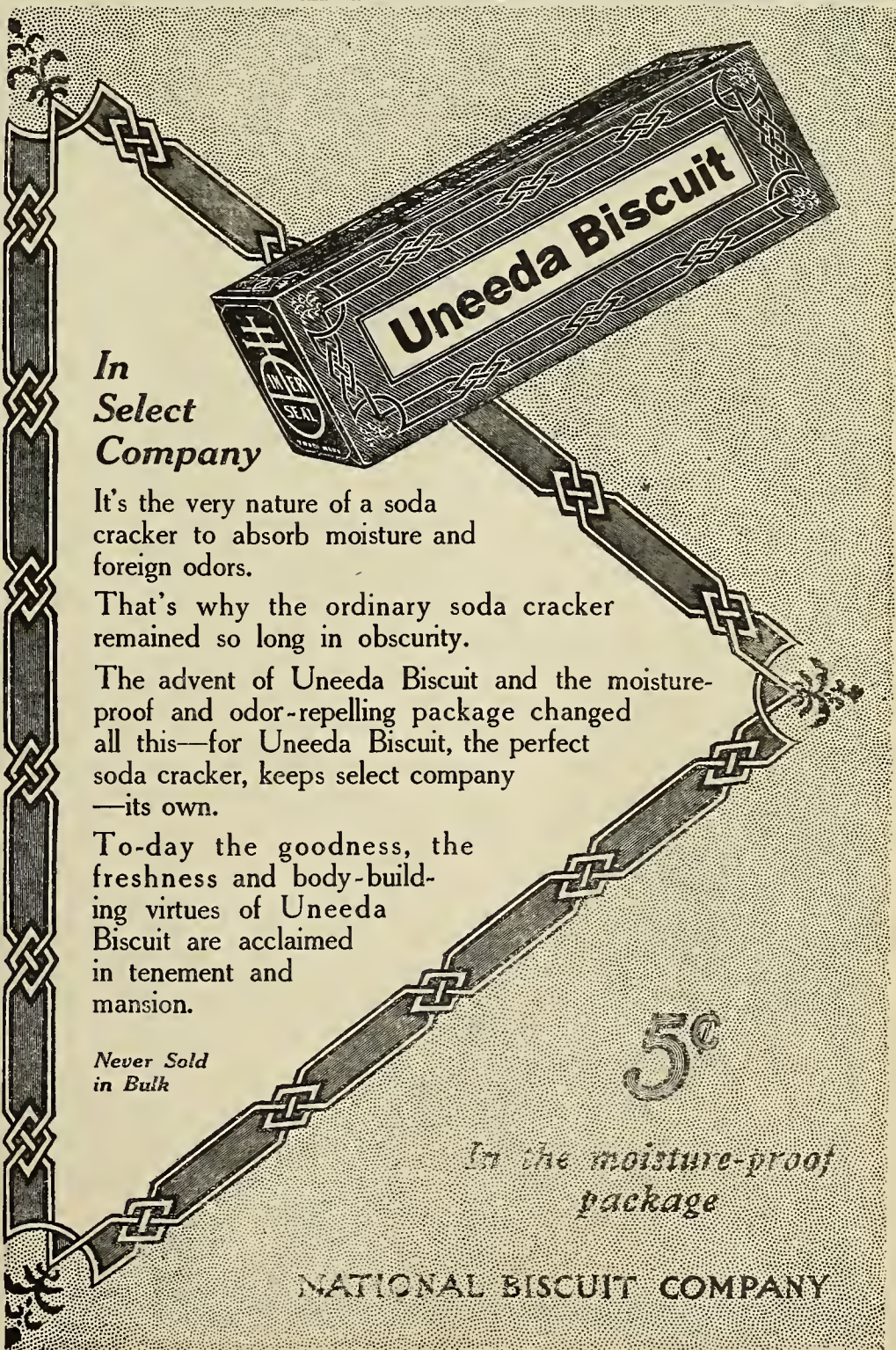
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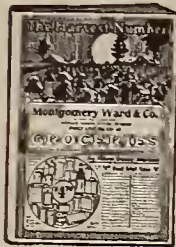
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The Road to Happiness

[CONTINUED FROM PAGE 20]

Frances had felt as if a great weight had rolled from her shoulders. "It's good to know that somebody cares what becomes of us," she had whispered chokily, as Caroline had installed them in two pretty bedrooms in her house, and then, in response to her loving kiss of encouragement, out had come the story of the broken engagement, but loyalty to her parents forbade her to make any explanation except that it had been "all her fault." Caroline did not try to force the girl's confidence, in spite of her sorrow and surprise. She knew how unreserved Frances usually was and that only some powerful motive could keep her silent. Therefore, she had tactfully left her alone, and returned to her own room, but hardly had she sat down to think over the affair before Norman was announced.

Her face flushed as the drama of the situation struck her, and she hurried downstairs, wondering a little perplexedly what was coming next, and questioning if her devotion to both of the young people gave her the right to interfere in their affairs unasked.

The sight of Norman's worn face shocked her, and made her handclasp so warm and her greeting so cordial that he himself opened the subject by saying a little huskily, "I see you know."

"Yes—and oh, Norman, can't it be helped?"

"No. I wish the whole affair to be a closed chapter. I am very sorry though—"

Suddenly she stopped him, saying, "You're much more than sorry—and you don't want the whole affair to be a closed chapter, or why did you come here? You must have known that I would talk to you about Frances. Be honest with yourself! You will be dealing with a woman now, but a very inexperienced, faltering little woman. Go to her, Norman! She needs you so!"

There was a long silence. Caroline had appealed to the best in him, the tender, protective instinct that lives in all good men. Gradually the obstinacy faded from his face, and he smiled—his characteristic smile of tenderness, not of mirth—and the tears stood in his eyes. Caroline knew she had won even before he said, "I will—if she wants me."

After that there was much to explain, much to talk over. They decided that he should come back to see Frances in the evening, for she was asleep now (the maid reported when questioned), and Norman would not disturb her. He only made one qualification to his complete surrender. Frances was not to be told of the approaching interview. She was to act entirely on her own initiative. Caroline assented to this gladly, confident of the girl's sentiments. Her face glowed with pleasure as she rose with him, while he made his adieux; but Norman, freed now from his all-absorbing gloom, noticed that she, too, looked weary and worn. A rush of gratitude swept over him.

"Bless you, Miss Sandford," he exclaimed, the tender respect of his tone a tribute. "I wanted to be convinced that I was wrong! I guess that's what I came for after all!"

Chapter VII.

CAROLINE sent dinner up-stairs to Mrs. Taylor and Frances, not wishing to expose them to the prying eyes of servants. At eight o'clock, however, when to their surprise Mr. Jordan's card was sent up, Mrs. Taylor seemed to collapse the moment Frances waved the bit of pasteboard away, saying, "You go down, Mother; I can't."

A piteous little moan prefaced the reply, "You must see him, Frances! I just don't feel equal to it!"

"Then send him away."

"Oh, no! He must have some object in coming. Perhaps—perhaps he has some news of your father!" She sank back on her couch weakly. "The very thought overcomes me. At such a time he wouldn't come just to make a social call. Go down, Frances." Her voice was so agitated and her manner so overwrought that the girl was impressed.

"Can't you send word that both of us are ill—and ask if he has any message?" she questioned, although shrinking desperately from the meeting.

"Nonsense," her mother parried sharply. "If by any chance he didn't have one, it would sound like a direct affront!"

"Very well. You may be right. I'll see him." As if in a hurry to get through with an unpleasant duty, she glanced hastily at herself in the mirror, then left the room.

When Frances entered the drawing-room, her face alight with wistful hope, his greeting was impressively sympathetic, but from the first moment she felt convinced that he bore no message but his own. However, hope clings to life, and it did not quite die until he said,

"I trust you won't consider my coming an intrusion. I felt as if I had to see if I could be of any service. I called at your home and was sent here. Of course, I suppose Mr. Norris—" He paused as she started and paled, and under his searching look the tears rushed to her eyes and her self-control deserted her.

"I—can't help it!" she sobbed. "I'm so upset."

"Of course." His manner was very tender. "It's only natural. I was simply going to say that perhaps I had better go to Mr. Norris to offer my assistance, as he undoubtedly has charge of your affairs."

"Oh, no!" she cried, then stopped. The moment she dreaded had arrived. "My engagement is broken," came at last from between her white lips.

A quick, triumphant gleam leapt into the man's eyes as he realized the situation.

"I'm not hypocrite enough to say I sympathize with Norris," he said bluntly. "I'm glad, because I love you!"

"Do you think this is the time or place for love-making?" she sobbed indignantly.

"No," he conceded with his exasperating coolness; "but I appreciate it all the more for that reason. I am rarely so moved that I fail to be conventional."

"You must not go on—"

"You mean I've gone too far to stop."

Suddenly the sound of the maid's voice answered by a masculine murmur arrested his words for a moment, then as the sounds died away he proceeded in his dictatorial wooing.

What he had heard was Mr. Norris's entrance. If Norman had spoken a little louder, or if Frances had only recognized his voice, their quarrel would have ended that evening—but it was not to be. Norman passed on into the library and there Caroline met him with the information that Frances was in the parlor with Jacob Jordan. "He is bound to go in a moment, though," she reassured him. "You must wait."

Three quarters of an hour passed, and still the faint hum of voices sounded from the drawing-room; then the inevitable happened. Norman rose.

Habits of thought are not shaken off in a day, and as usual he saw the bare fact as all important. Frances, supposedly heartbroken and almost distracted, was very evidently able to endure a lengthy call from the man whom she herself had called his rival. A mixture of jealousy and disgust darkened his face.

"I'm going," he announced briefly, afraid to trust himself to say more, and the finality of his tone held Caroline silent. Slowly she walked with him to the door, hoping against hope that Frances would suddenly appear, but they passed along the hall uninterrupted; then he held out his hand in leave-taking. She clasped it convulsively, whispering with a sob, "She does care for you, Norman! I know it! I'm sure of it."

By the tense grip of his hand she knew what he was suffering; but he merely looked toward the drawing-room in reply.

"I'm going," he repeated heavily. There was a rush of cold air as the door opened then closed behind him. Her intervention had failed.

A half hour later Mr. Jordan finally lifted his siege, and Frances felt as if she had truly been under fire. He had tempted her to marry him with every lure fascinating to a girl of her upbringing, but she had steadily refused to listen, despite her terrible sense of helplessness and her longing to have someone to take care of them. Only one thought had held her firm. Norman would have the right to despise her if she did this thing. Mr. Jordan's going left her too tired to think or even to feel much more that night. Wearily she dragged herself upstairs, oppressed by the consciousness that her struggle against him had just begun, but little dreaming how signally he had already triumphed.

[TO BE CONTINUED]

Across the Dividing-Line

[CONTINUED FROM PAGE 18]

the light breeze and looking like a vast army of green-clad soldiers on parade.

Mrs. Pike was taken off her guard. "Why—er—Mr. Tubbs planted it," she stammered uneasily.

"What for?" roared the Deacon—or if not a roar exactly, it was a pretty fair imitation of one, considering that the utterance of it was still confined to a sick-room. "What right had he to come on my place and do any corn-plan? I'd like to know?"

"There, there! calm yourself, David!" soothed Mrs. Pike. "It won't do to go on this way."

"Ca'm myself, eh, with ten acres of corn that Abner Tubbs planted growin' on the place? No, siree; the minute I can set foot outdoors I'll plow it all up—every hill of it! He only done what he did to aggravate me."

"No, he didn't, David. Why, he didn't even want you to know anything about his planting it. He told me not to tell you—and I'm sorry now I did."

The flush of anger in the Deacon's face slowly died out. With twitching muscles and eyes in which there was a suspicion of moisture, he gazed once more across the fields to where the swaying rows of corn were glistening in the mellow sunlight.

"So Abner didn't want me to know that he planted the corn, eh?" he finally asked. "No; he thought you might not like it."

"I s'pose that's why he made the rows so straight. Thought 'twould fool me. Did Abner do the harrowin' and hoein' too?"

"Yes, all the work on the corn was done by him and his hired man. They helped some with the other work, too, and—I declare, there's Mr. Tubbs drivin' by now!"

"Call to him, and ask him to come in," said the Deacon quietly.

When the old-time enemies found themselves face to face, they gazed questioningly into each other's eyes for a moment of tense silence. Then they clasped hands and spoke the names by which they had once known each other:

"Abner!"

"Dave!"

A few seconds later, when the Deacon had regained control of his voice once more, he looked up at his ciller and cheerfully remarked: "Abner, I'm a fool! Been one for goin' on a dozen years."

"Same here!" said Abner. "Let's quit."

"I'm willin'; and I'll move that line wall next week."

"No, you won't, Dave. I've been lookin' it over, and it's all right where it is."

"Then you want to let it stand?"

"Yes, on one condition."

"What is that?"

"That we no longer allow it to be a dividin'-line between us."

"Well, Abner," agreed the Deacon, smiling whimsically as he once more grasped the other's hand, "we won't argue over that pint. 'Pears to me, as nigh as I can figger it, from the way you've been traipsin' round over my place, with your corn-plantin' and other doin's, while I was laid up, that dividin'-line must be pretty well wiped out."

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